

**Handbook on the compilation
of statistics on illegal
economic activities in national
accounts and balance
of payments**

2018 edition



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Foreword

In September 2014, when illegal prostitution, the production and trafficking of illegal drugs, and the smuggling of tobacco and alcohol products were included in the measurement of EU Member States' economic activity, it generated a lot of media attention and people asked why this change was being made.

In fact, there are international standards that date back to the 1990s requiring that illegal activities that represent 'market transactions' (i.e. are based on mutual agreement) be recorded in a country's GDP. The latest version of the UN's system of national accounts (2008 SNA) mentions two kinds of illegal activity:

- activities that are not illegal *per se*, but which become illegal if carried out by unauthorised persons, e.g. unlicensed practitioners or unauthorised lotteries; and
- activities that are against national law regardless of who carries them out, e.g. illegal transportation in the form of smuggling of goods or people, the production of and trade in narcotics, illegal prostitution.

National accountants and balance of payments statisticians view illegal economic activities from a purely statistical perspective. Standards are set by national accounting experts from around the world so as to reflect reality (rather than to make moral judgements) and to ensure that individual countries' accounts are not affected by institutional peculiarities. Illegality is not universal or immutable.

Goods and services that are illegal in some countries (e.g. drugs, prostitution and alcohol) may be legal and quite acceptable in others and what is illegal one day may become legal the next. Some illegal goods and services (e.g. gambling and prostitution) may be no more objectionable on moral grounds than legal products such as neutron bombs or nerve gas. Accounting for illegal economic activity is also necessary to preserve comparability between and within countries over time.

Estimating the extent or value of illegal economic activities for national accounts and balance of payments statistics is clearly problematic, because direct observation is often out of question. Nevertheless, they can be of considerable importance, not only in terms of painting a reliable picture of production, but also because of their effects on income distribution, consumption, gross saving and net lending/borrowing.

Measuring illegal economic activities is difficult, but information and guidance are available. Information may be obtained from administrative and law enforcement records, estimates of key inputs or major uses, and special research. Statistical institutions and data users have increasingly recognised the need for comprehensive, reliable and internationally available information on illegal economic activities in national accounts and balance of payments statistics. To this end, this *Handbook* provides guidance on:

- the concepts and definitions of illegal economic activities;
- recommended methodological frameworks for compiling data; and
- data sources and statistical techniques for recording illegal economic activities.

We also touch on wider issues of growing interest that go beyond the recommendations on core IEAs⁽¹⁾ formulated by the Gross National Income (GNI) Committee⁽²⁾, and include country cases that provide practical guidance for Member States starting to compile, or improving the compilation of, IEA statistics. This *Handbook* is intended to help national accounts and balance of payments statistics compilers to produce IEA statistics in a consistent and coordinated way, and as a guide for users of such statistics.

Ales Capek
Head of Unit C5: Integrated Global Accounts and Balance of Payments

⁽¹⁾ Core IEAs are prostitution, the production and trafficking of illegal drugs, and the smuggling of alcohol and tobacco products.

⁽²⁾ As established under Council Regulation (EC, Euratom) No 1287/2003 of 15 July 2003 on the harmonisation of gross national income at market prices (GNI Regulation) (OJ L 181, 19.7.2003, p. 1).

Acknowledgements

This *Handbook* is the result of the joint work of the members of the task force on the recording of IEAs in national accounts and balance of payments statistics: Matthias Ludwig (chair, Eurostat), Rita Mesias (Eurostat), Marios Pappaspyrou (Bank of Greece), Hilary Cadogan (Central Statistics Office, Ireland), Brian Ramsbottom (Central Statistics Office, Ireland), Federico Sallusti (ISTAT, Italy), Miriam Tagliavia (Banca d'Italia), Robert Michaux (STATEC, Luxembourg), Durmus Göker (Statistics Sweden), Carmen Picon-Aguilar (European Central Bank), Pedro Polvora (European Central Bank), Richard Caine (European Commission – DG Migration and Home Affairs), Luca Pappalardo (European Commission – DG Migration and Home Affairs), Isabelle Ioannides (European Parliament - European Parliamentary Research Service), Ilcho Bechev (Eurostat), Diana Cucu (Eurostat), Andreas Dollt (Eurostat), Robert Dunn (Eurostat), Henk Nijmeijer (Eurostat), Christian Ravets (Eurostat), and David Brackfield (OECD).

Each chapter was drafted by a lead author and subsequently reviewed by the task force members. The lead authors were Hilary Cadogan (Central Statistics Office, Ireland), Brian Ramsbottom (Central Statistics Office, Ireland), Stijn Krzeszewski (Statistics Netherlands), Sander IJmker (Statistics Netherlands), Durmus Göker (Statistics Sweden), Richard Caine (European Commission – DG Migration and Home Affairs), Luca Pappalardo (European Commission – DG Migration and Home Affairs), Isabelle Ioannides (European Parliament - European Parliamentary Research Service), Ilcho Bechev (Eurostat), Robert Dunn (Eurostat), Matthias Ludwig (Eurostat) and Rita Mesias (Eurostat). Their willingness to contribute to the *Handbook* and to undergo in-depth reviews of their work by the other members of the task force and experts, and in the course of consultations of the BOP working group, the NA working group and Eurostat management is testament to their commitment and enthusiasm.

The following experts took part in meetings of the task force and provided valuable input for individual chapters: Milen Kolev (National Statistical Institute, Bulgaria), Merja Myllymäki (Statistics Finland), Michele Giammatteo (Banca d'Italia), Matthew Salomon (Global Financial Integrity, Washington D.C., USA), Professor Dr. Brigitte Unger (Professor of Public Sector Economics, Utrecht School of Economics, Utrecht University, the Netherlands), Professor Dr. Olha Cherednychenko (chair in European Private Law and Comparative Law, University of Groningen; director of the Groningen Centre for European Financial Services Law, the Netherlands), Dr. Dev Kar (Global Financial Integrity, Washington D.C., USA), Thomas Ljungquist (European Commission – DG Justice and Consumers), Álvaro Rodríguez Gaya (Europol European Migrant Smuggling Centre), Jennifer Macleod (Europol – Financial Intelligence Unit), Sarah McLaughlin (European Commission – European AntiFraud Office (OLAF)) and Enrico Bisogno (UNODC).

The *Handbook* contains a number of useful examples and case studies. Most of these are from the EU (Belgium, Denmark, Finland, Italy, Luxembourg, the Netherlands, Sweden and the United Kingdom), but the inclusion of cases from Australia, Columbia, Serbia and Ukraine ensures a wider geographical scope and illustrates the international nature of work on the statistical estimation and recording of IEAs.

The statistical offices and central banks of Belgium, Bulgaria, Denmark, Finland, Germany, Hungary, Luxembourg, Portugal, Turkey, Lithuania, the Netherlands, Norway, Slovakia, Slovenia, Spain, Turkey and the United Kingdom, Dr. Dev Kar (Global Financial Integrity, Washington D.C., USA), Professor Dr. Brigitte Unger, the European Commission's DG for Economic and Financial Affairs, the ECB, the IMF, the UNODC and the OECD all provided important comments in the general consultations that helped us finalise the *Handbook*.

Rita Mesias and Ilcho Bechev collected the contributions to the *Handbook* and organised the meetings and international consultations.

List of contributors

Chapter 1: Introduction

Principal author: Rita Mesias (Eurostat)

Other contributor: Isabelle Ioannides (European Parliament European Parliamentary Research Service)

Chapter 2: Methodological framework for compiling IEA statistics

Principal authors: Rita Mesias, Robert Dunn (Eurostat)

Chapter 3: Collecting, compiling/estimating and reporting IEA transactions in the national accounts and balance of payments statistics accounting frameworks

Principal authors: Rita Mesias, Robert Dunn (Eurostat)

Chapter 4: Theoretical possibility for estimating other types of illegal economic activities**Chapter 4.2 Illicit firearms trafficking**

Principal author: Hilary Cadogan (CSO Ireland)

Chapter 4.3 Fencing of stolen goods

Principal author: Brian Ramsbottom (CSO Ireland)

Chapter 4.4 Migrant smuggling

Principal author: Durmus Göker (Statistics Sweden)

Other contributor: Álvaro Rodríguez Gaya (Europol)

Chapter 4.5 Infringement of intellectual property rights: counterfeit goods and piracy

Principal author: Richard Caine (DG Migration and Home Affairs)

Other contributor: Luca Pappalardo (DG Migration and Home Affairs)

Chapter 4.6 Bribery

Principal author: Luca Pappalardo (DG Migration and Home Affairs)

Other contributor: Richard Caine (DG Migration and Home Affairs)

Chapter 4.7 Illegal gambling

Principal authors: Stjin Krzeszewski, Sander IJmker (Statistics Netherlands)

Chapter 4.8 Provision of money laundering services

Principal author: Matthias Ludwig (Eurostat)

Chapter 5 Country cases: an overlook of national experiences in statistical recording of IEAs

Principal author: Ilcho Bechev (Eurostat)

Annex Preparing estimates for the provision of money laundering services

Principal author: Matthias Ludwig (Eurostat)

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1

Introduction

1.1. Purpose of the *Handbook*

1. The purpose of this *Handbook* is to provide a common definition of illegal economic activities (IEAs) and guidance for collecting and compiling IEA statistics, in a consistent and coordinated way, in national accounts (NA) and balance of payments (BOP) statistics in the EU. The aim is to contribute to improved collection and compilation, and to a greater understanding of IEA transactions. The *Handbook* thus addresses data compilers' and users' needs for NA and BOP statistics covering all economic transactions, including IEAs.
2. Exhaustive coverage of economic transactions and positions within an economy and between an economy and the *rest of the world* (ROW) is an important factor determining the quality of NA and international accounts.⁽³⁾ However, comprehensive (or even broad) coverage is difficult to achieve because of shortcomings in the recording of certain transactions relating to productive and commercial activities, deficiencies in data collection systems, or cost/benefit considerations (e.g. nonrecording of statistically insignificant items).⁽⁴⁾ Some goods, services and transactions are missing from basic data sources, or are wrongly recorded, because they are illegal.⁽⁵⁾ When it comes to IEAs (production of and trade in illegal goods and services, and illegal financial transactions), compilers of official statistics face particular difficulties as regards the availability of data sources.
3. Given the range of possible approaches to measuring IEAs, there is demand among compilers and users for best practices to be identified and promoted. The *Handbook* provides guidance for producing estimates in line with international statistical standards, the *System of national accounts 2008 (2008 SNA)*, the *European system of accounts (ESA 2010)* and the *sixth edition of the Balance of payments and international investment position manual (BPM6)*.
4. This *Handbook* seeks to raise awareness of the types of IEA that are relevant in the current national and international contexts, and that could have a nonnegligible impact on GDP and external sector statistics.

1.2. Structure of the *Handbook*

5. The *Handbook* consists of three main parts and one annex:
 - Part I: Current methodological framework for the collection (data sources), compilation/estimation, and reporting of IEAs in National accounts and balance of payments statistics (Chapters 2-3);

⁽³⁾ This means that the aim of compiling macroeconomic statistics is to cover, as far as possible, all economic activities that take place in a given economy, in order to produce a better description of it.

⁽⁴⁾ Article 5(2)(b) of Council Regulation (EC, Euratom) No 1287/2003 of 15 July 2003 on the harmonisation of gross national income at market prices (GNI Regulation) provides that 'reliability, comparability and exhaustiveness of GNI and its components must be assessed taking account of the cost-benefit principle ... The cost-benefit principle entails a judgment on the potential size and significance of specific activities or transactions based on whatever information is available ... The Commission (Eurostat) examines the comparability in the treatment of similar cases in the Member States and reports to the GNI Committee on all cases where the cost-benefit principle is considered to apply. The application of this principle should avoid committing disproportionate resources to calculate insignificant items'.

⁽⁵⁾ Transactions of other activities such as underground and informal production, and household production for own final use, can be missed in the macroeconomic statistics. These make up the non-observed economy (NOE). For additional information on the NOE, see OECD et al.: *Measuring the non-observed economy: a handbook*, OECD Publishing, Paris 2002 and Chapter 3 of this *Handbook*.

- Part II: Scope for further work on the inclusion of IEAs in the national accounts and balance of payments statistics (Chapter 4);
 - Part III: Country casestudies (Chapter 5); and
 - Annex: Preparing estimates for the provision of moneylaundering services.
6. Chapter 2 covers the definition of IEAs, their scope, reasons for compiling IEA statistics and the consequences of not recording them. It also contains a summary of the guidance under European conventions and recommended methodological frameworks for compiling IEA statistics on the basis of international standards, including the relevant accounting principles applying to the measurement of IEAs.
 7. Chapter 3 presents initiatives to improve the collection and compilation of IEA statistics, including efforts to measure the non-observed economy (NOE) using Eurostat's tabular approach and current recommendations, best practices and data sources for the compilation of national accounts and balance of payments statistics on three specific IEAs (prostitution services, the production and trafficking of illegal drugs, and the smuggling of tobacco and alcohol). It includes IEA data for the EU and identifies collection and compilation risks, such as doublecounting and misclassification. It also provides recommendations for deriving the resident/non-resident and geographical breakdowns required for BOP statistics.
 8. Chapter 4 sets out avenues for further work in the area of IEA statistics, as a starting point for the theoretical and practical investigation of activities other than the core IEAs. It builds on types of IEA generally identified by national accountants: ⁽⁶⁾ the illicit firearms trafficking, fencing, migrant smuggling, bribery, counterfeit goods and piracy, illegal gambling and the provision of moneylaundering services.
 9. Four Member States already include estimates for illegal gambling in their NA, two include estimates for the fencing (resale) of stolen goods and copyright infringement, and one includes estimates for migrantsmuggling, bribery and moneylaundering. The scale and distribution of such activities varies across countries and may also be significant in nonEU countries.
 10. Chapter 5 contains casestudies from EU Member States (Belgium, Denmark, Italy, Luxembourg, Netherlands, Finland, Sweden, United Kingdom) and non-EU countries (Australia, Columbia, Serbia, and Ukraine).

1.3. The objectives of the task force on the recording of IEAs in national accounts and balance of payments statistics

11. In its work plan, the Committee on monetary, financial and balance of payments statistics (CMFB) ⁽⁷⁾ assigned priority level 1 ('essential') to establishing a task force on the recording of IEAs in national accounts and balance of payments statistics. The task force was set up in April 2015 under the auspices of the BOP working group, with the following objectives:
 - to tackle the asymmetries between national accounts and balance of payments statistics caused by the fact that Member States include the core IEAs (prostitution, the production and trafficking of illegal drugs, and the smuggling of alcohol and tobacco products) in their NA, but not consistently in all cases in their BOP statistics. At the time of writing, 19 Member States included estimates of IEAs in their BOP; ⁽⁸⁾
 - to provide BOP compilers with methodological guidance on estimating core IEAs. The task force came across no publicly available comprehensive documentation on methods and sources applied in the EU or elsewhere. Its guidance is set out in Parts I and III;

⁽⁶⁾ See Box 2 and Blades, Derek W., Crime: What should be recorded in the national accounts and what difference would it make? in Gaertner, Wulf/Wenig, Alois (eds.), Proceedings of the international conference on the economics of the shadow economy, Germany, Berlin, New York, Springer Verlag 1985.

⁽⁷⁾ 91/115/EEC: Council Decision of 25 February 1991 establishing a committee on monetary, financial and balance of payments statistics (OJ L 59, 6.3.1991, p. 19).

⁽⁸⁾ Belgium, Bulgaria, Czech Republic, Denmark, Germany, Estonia, Ireland, Spain, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Austria, Slovenia, Finland, the United Kingdom and Poland. Iceland, Norway and Switzerland also include estimates of illegal economic activities in their BOP.

- to examine the theoretical possibility of estimating other types of IEA in addition to the core IEAs already included in the NA. We address this objective in Part II, which is a purely theoretical discussion of what could be achieved given our current understanding and available information. Member States are under no obligation to include the activities discussed in Part II in their NA and/or BOP statistics. Neither does Part II seek to produce estimates for the whole NOE or the illegal economy.

Box 1: Further considerations for measuring IEAs

The policy implications of statistics are irrefutable. Statistics have become indispensable both to experts for analysing illegal economic activities (IEAs) and to policy-makers for making effective and efficient decisions on confronting IEAs. Calls by end users – be they politicians, regulators, trade unions, media commentators, professional bodies or scholars – to reform relevant existing laws, introduce new laws, reinforce enforcement, increase resourcing or develop better prevention mechanisms, all base their validity on such existing statistics.

In that context, measuring IEAs has become a matter of key consideration in recent years. Targeting IEAs is considered a means of strengthening the integrity of the financial system and tackling organised crime by feeding into efforts to improve policies with actual (and potential) results in practice at Member State, EU and global levels. Relevant stakeholders are interested, among other issues, in understanding the size of the IEAs, how much IEAs cost to the economy, how much revenue – if any – is foregone because of IEAs, and how well current enforcement mechanisms work.

These concerns have led to the development of measures in our own societies for controlling IEAs, and the creation of foreign policy tools to be used on problem countries and politically exposed persons. Therefore, the need for comprehensive, reliable and internationally available statistics on IEAs in national accounts (NA) and balance of payments (BOP) continues to be of key importance. IEAs are already an integral part of the existing methodologies that National Statistical Institutes in Member States use, and they are already included in their NAs and BOP.

Against this background, the *Handbook on the compilation of statistics on illegal economic activities in national accounts and balance of payments* (IEAs Handbook) aims to provide a necessary compass on: (1) the concepts and definitions of IEAs; (2) recommended methodological frameworks for compiling these data; and (3) the data sources and statistical techniques for recording IEAs. This *Handbook* also considers the further scope of IEAs by starting discussions in areas of growing interest that are beyond the recommendations formulated by the Gross National Income (GNI) Committee. It also includes country cases that provide practical grounds for Member States to start compiling or improving the compilation of IEAs.

Arguably, the task of estimating and quantifying IEAs remains challenging and is seen as being fraught with controversy. Questions are raised as to the reliability of statistical data collected and the manner in which such data can be correctly identified, collected, acquired, and eventually analysed by the user. In terms of methods, despite (and sometimes because of) the diversity of information obtained, it can be difficult to provide a definitive answer to the quantification questions. The complexity of the IEAs is further compounded by the limited availability of usable statistics. This is because the individuals engaged in these activities do not wish to be identified and therefore make an explicit effort to hide their activities.

The *Handbook* tackles a number of these concerns. It points to the significance of differentiating between intrinsically illegal economic activities and those economic activities that are legal by nature but become illegal through their implementation and/or because the activity is hidden from relevant authorities (e.g. tax authorities). For example, the complexity of data sources is addressed in the chapter 4.6 on bribery and chapter 4.8 on money laundering, and the difference between the consequences of mutual agreement and violence is developed in the chapter 4.4 on migrant smuggling and chapter 4.8 on money laundering. Experts have used a variety of methods to estimate the extent of illegal economic activities, some of which are also analysed in this *Handbook*. Such methods include tax auditing, discrepancies between official and actual labour force, physical input (e.g., electricity consumption), the monetary approach, and the latent indicator approach. More specifically, approaches used under the monetary method have encompassed the currency ratio approach, transaction approach, and the currency demand approach.

Given the importance of tackling IEAs, the difficulties in quantifying accurately IEAs cannot be used as a reason to deter government attention away from this problem. Quantification of IEAs is not seen as an end in itself nor an endpoint. Rather, it is conceived as a continuous process, one that aims to improve the quality of the data obtained and recorded at every stage of the process. In that spirit, it is hoped that this *Handbook* will offer national accounts and balance of payments statistics compilers the necessary tools for the consistent and coordinated production of data concerning IEAs, and users of IEAs statistics the tools for their thorough analysis.

2

Methodological framework for compiling IEA statistics

2.1. Introduction

12. We begin this chapter by defining IEAs in line with the concepts and definitions in the *2008 SNA*, the *ESA 2010* and the *BPM6*. The definition is based on the notion of illegal actions⁽⁹⁾ that have the characteristics of a transaction.

2.2. Definition of IEAs

13. In line with the manuals on international macroeconomic statistics (*2008 SNA* and *BPM6*), binding European legislation on European NA,⁽¹⁰⁾ the *ESA 95*⁽¹¹⁾ and the *ESA 2010*,⁽¹²⁾ this *Handbook* defines IEAs as ‘transactions that are forbidden by law’ and transactions that are not illegal *per se* but become illegal if carried out by unauthorised persons. IEAs are transactions only when the institutional units involved enter into them by mutual agreement;⁽¹³⁾ otherwise, they are ‘other flows’.⁽¹⁴⁾

2.3. Scope of IEAs

14. There is growing interest in the phenomenon of the ‘non-observed economy’ (NOE),⁽¹⁵⁾ which comprises activities that are not captured in the basic data (i.e. business surveys and/or administrative sources) on production, income and expenditure from which the NA are compiled. These are most likely to be those that are ‘underground’ or ‘illegal’;⁽¹⁶⁾ belong to the ‘informal sector’⁽¹⁷⁾ or are ‘undertaken by households for their own final use’. Activities may also be missed due to deficiencies in basic statistical data collection systems.⁽¹⁸⁾
15. The international guidance (see *2008 SNA*, paragraph 6.43) refers to two kinds of illegal production:
- the production of goods and services of which the sale, distribution or possession is forbidden by law; and

⁽⁹⁾ Illegal actions may or may not be considered economic transactions.

⁽¹⁰⁾ See Article 1(1) of Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community (OJ L 310, 30.11.1996, p. 1).

⁽¹¹⁾ *ESA 95* indicates (paragraph 1.13) that the production boundary includes production forbidden by law, e.g. prostitution and the production of drugs. Paragraph 3.08 presents all the activities included in production and states that ‘all such activities are included even if they are illegal or not registered at tax, social security, statistical and other public authorities’.

⁽¹²⁾ See Article 1(1) of Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union (OJ L 174, 26.6.2013, p. 1).

⁽¹³⁾ See paragraph 32 for a definition of ‘mutual agreement’.

⁽¹⁴⁾ See *2008 SNA*, paragraph 3.99 and *BPM6*, paragraph 9.1 for definitions of ‘other flows’.

⁽¹⁵⁾ For more information, see OECD et al.: *Measuring the non-observed economy: a handbook*, OECD Publishing, Paris 2002, paragraphs 1.8-1.9 and *2008 SNA*, paragraphs 6.39-6.42 and Chapter 25, section C.

⁽¹⁶⁾ For more information on illegal production, see *2008 SNA*, paragraphs 6.43-6.46.

⁽¹⁷⁾ Actors in the informal economy could be engaged in illegal activities. For more information on the informal economy, see *2008 SNA*, Chapter 25: Informal aspects of the economy.

⁽¹⁸⁾ For more information on the NOE, see Chapter 3.

- production activities that are usually legal but become illegal when carried out by unauthorised producers, e.g. unlicensed medical practitioners.
16. Examples of activities that may be illegal but productive in an economic sense include the manufacture and distribution of narcotics, illegal transportation in the form of smuggling goods or migrants, and services such as prostitution.⁽¹⁹⁾
 17. The *2008 SNA* explains (paragraph 6.45) that ‘both kinds of illegal production are included within the production boundary of the SNA provided they are genuine production processes⁽²⁰⁾ whose outputs consist of goods or services for which there is an effective market demand’⁽²¹⁾. Proof of ‘effective market demand’ will usually be that the person acquiring the illegal good or service does so freely without any form of compulsion being applied by the supplier. The same paragraph explains why these illegal goods and services are to be included: ‘Transactions in which illegal goods or services are bought and sold need to be recorded not simply to obtain comprehensive measures of production and consumption but also to prevent errors appearing elsewhere in the accounts’.
 18. A significant part of illegal economic activities might be measured implicitly in the GDP. ‘The incomes generated by illegal production may be disposed of quite legally, while conversely, expenditures on illegal goods and services may be made out of funds obtained quite legally. The failure to record illegal transactions may lead to significant errors within the accounts if the consequences of the activity are recorded in the financial account and the external accounts, say, but not in the production and income accounts’ (see *2008 SNA*, paragraph 6.45).
 19. IEAs are illegal actions that have the characteristics of a transaction (in particular, being based on agreement between the parties). They are treated in the same way as legal actions (see *2008 SNA*, paragraph 3.96). Many illegal actions are crimes against persons or property that cannot be construed as transactions. For example, theft cannot be described as an action based on agreement between the parties. Conceptually, theft or violence is an extreme form of an externality in which damage is inflicted on another party deliberately and not merely accidentally or casually. Thus, thefts of goods from households, for example, are not treated as transactions and estimated values are not recorded for them under household expenditures (see *2008 SNA*, paragraph 3.97). Similarly, violent actions such as human trafficking for exploitation, forcing individuals into prostitution,⁽²²⁾ robbery and kidnapping do not fulfil the ‘mutual agreement’ criterion. Acts of violence or theft must be accounted for if they involve significant redistribution or destruction of assets, but they are treated as ‘other flows’,⁽²³⁾ not transactions. Illegal production does not cover the generation of externalities.⁽²⁴⁾ In this respect, the ‘mutual agreement’ criterion is to be applied to determine whether the illegal action is an economic transaction in the BOP, in line with the NA definition of IEAs. Tax evasion is usually a criminal offence, not a transaction.⁽²⁵⁾

⁽¹⁹⁾ The GNI Committee made recommendations for the compilation of specific IEAs in the NA; see paragraphs 2226 for additional information on these specific IEAs.

⁽²⁰⁾ In the *2008 SNA*, production is understood to be a physical process, carried out under the responsibility, control and management of an institutional unit, in which labour and assets are used to transform inputs of goods and services into outputs of other goods and services. The *2008 SNA* includes within the production boundary all production actually destined for the market, whether for sale or barter. It also includes all goods or services provided free to individual households or collectively to the community by government units or non-profit institutions serving households (see *2008 SNA*, paragraph 1.40).

⁽²¹⁾ The units that purchase illegal goods and services may not be involved in any kind of illegal activity and may not even be aware that the other party to the transaction is behaving illegally.

⁽²²⁾ Human trafficking and forced prostitution is not estimated, even if two parties (excluding the trafficked individual or forced prostitute) enter into a transaction under conditions of mutual agreement, because a human does not fit the definition of a good or a capital item, so the exchange of currency in these circumstances is a household to household current transfer (D.75) rather than a transaction in goods. As this transfer has no impact on the production account (and thereby GDP) and no material consequences for the sector accounts, there is no need for an estimate.

⁽²³⁾ See *2008 SNA*, paragraphs 3.97-3.100 for more information on other flows.

⁽²⁴⁾ Externalities may result from production processes that are themselves quite legal. Externalities are created without the consent of the units affected and no values are imputed in the NA and BOP; for more information on externalities, see *2008 SNA*, paragraph 29.42.

⁽²⁵⁾ Tax evaders seek to conceal income from detection and collection by the tax authorities. There is no mutual agreement between the tax evader and the tax administration.

Box 2: Types of illegal production ⁽²⁶⁾

Blades (1983) identifies the following general types of illegal production: ⁽²⁷⁾

- the production and distribution of illegal goods, e.g. banned drugs and pornographic material;
- the production of illegal services, e.g. prostitution (in countries where it is illegal);
- production activities that are usually legal but become illegal when carried out by unauthorised producers, e.g. unlicensed medical practices, gambling activities, production of alcohol, prostitution (in countries where it is legal);
- poaching, e.g. illegal fishing, hunting, treecutting;
- the production and sale of counterfeit products, such as watches and other products with false trademarks and unauthorised copies of artistic originals, e.g. software, CDs and videos;
- wholesale and retail smuggling, in particular of tobacco, weapons, alcohol, food or people;
- the fencing (resale) of stolen goods;
- bribery; and
- moneylaundering.

Source: Blades, Derek W.: Crime: What should be included in the national accounts and what difference would it make, in: Gaertner, Wulf/Wenig, Alois (eds.): *The Economics of the Shadow Economy. Proceedings of the International Conference on the Economics of the Shadow Economy*, Held at the University of Bielefeld, West Germany, October 10–14, 1983, New York, Springer, 1985, p. 45–58.

2.4. Reasons for compiling IEA statistics and consequences of not doing so

20. Macroeconomic statistics, including national accounts and balance of payments statistics, should cover all economic phenomena irrespective of whether they are legal or illegal, as long as they can be defined as economic transactions. Also, since national accounts and balance of payments statistics are integrated systems, data in one area cannot be altered or excluded without affecting data and relevant indicators in other areas.
21. The inclusion of IEAs has been recommended since 1993 ⁽²⁸⁾ in international statistical standards. ⁽²⁹⁾ Calculating GDP involves measuring the production activity of resident producer units. Both declared and undeclared production activities (including IEAs) must be taken into account if we are to have a full and accurate picture of the value of production/consumption in a given period. Another reason for including IEAs in the NA is to avoid distorting key economic indicators derived from the NA. For example, if money spent on illegal goods and services is not recorded, total consumer spending will be underestimated and household savings will be overestimated. Similarly, if income from IEAs is not recorded, household disposable income will be underestimated. The distortion of these economic indicators could reduce the effectiveness of NA statistics for policymakers and users. It is for the above reasons that international guidance manuals include IEAs as ‘production’ in the context of NA.
22. Failure to include IEAs may also lead to distortions in the current account and the financial account of the BOP statistics. Institutional units that do not routinely report IEAs such as purchases of illegal drugs will probably not present such purchases as a merchandise import or a current account debit item. Also, assumptions have to be made about the residency of the drugs traders, since part of the margins in these transactions may be generated by non-residents, thus not contributing to national GDP. On the other hand, residents may generate trade margins on IEAs *vis-à-vis* the *rest of the world* and these should be included in the BOP. The likely result of not including IEAs in the current account is that they will be mistakenly entered as ‘other investment’ or ‘errors and omissions’. Trade in goods should include estimates of illegal

⁽²⁶⁾ The UNODC has prepared a complete classification of crimes for statistical purposes. See *International Classification of Crime for Statistical Purposes*, Version 1.0, March 2015, UNODC; <https://www.unodc.org/unodc/en/data-and-analysis/statistics/iccs.html>. Many of the crimes included in this *Handbook* are included in the list prepared by UNODC.

⁽²⁷⁾ Some of these activities are discussed in detail in Chapters 3 and 4.

⁽²⁸⁾ Neither the 1953 nor the 1968 versions of the SNA specified how countries should treat IEAs in calculating GDP, but the 1993 SNA was quite explicit about their treatment.

⁽²⁹⁾ The same recommendations, in much the same language, are included in the 2008 SNA.

drug imports to ensure comparability in measuring GNI across Member States. In addition, certain IEAs (e.g. moneylaundering)⁽³⁰⁾ have a direct impact on the financial account of BOP statistics.

23. It may be difficult, or even impossible, to obtain data on illegal transactions, but in principle they should be covered in the accounts because they can be of considerable importance:
 - to ensure that we have a reliable picture of the production process;
 - because of the effects on income distribution, consumption, saving, investment and financial flows and positions; and
 - to prevent errors appearing elsewhere in the accounts.
24. Failure to record IEAs may lead to accounting inconsistencies if their impacts are recorded in the financial and external accounts, but not in the production and income accounts (see *2008 SNA*, paragraph 6.45, and [Box 3: References to IEAs in the ESA 2010, the 2008 SNA, and the BPM6](#)). It is true that IEAs require special attention, but they should not be excluded from normal and current data collection and compilation processes.
25. Differences between economies, or within an economy over time, in how IEAs are defined⁽³¹⁾ can lead to inconsistencies in the international accounts. Furthermore, IEAs generally affect other legal transactions (e.g. illegal exports of goods may give rise to external financial claims). Thus, the exclusion of IEAs could lead to an imbalance in the international accounts (see *BPM6*, paragraph 3.5).

2.5. International conventions and statistical manuals – guidance on the compilation of illegal economic activities statistics

2.5.1. Current regulation on the inclusion of illegal economic activities in national accounts

26. *ESA 95* follows Article 2 of the Commission Decision on exhaustiveness⁽³²⁾ in requiring that all legal economic activities be included in an exhaustive estimate of GDP/GNI. This includes economic activities that are legal *per se* but hidden from national authorities. The GNI Committee's recommendations were formulated under *ESA 95*, but remain valid under *ESA 2010* (which takes the same methodological approach as to what constitutes an economic transaction).
27. In its final report, the task force on illegal activities (which the GNP Committee had set up on 7 November 2001) concluded that the trafficking and production of drugs, prostitution, and the smuggling of alcohol and tobacco were the IEAs that had the biggest impact across all Member States. Therefore, countries' subsequent work focused on these three types of IEA.
28. On 27 January 2012, the Commission notified transversal reservations⁽³³⁾ on the GNI calculations of all 27 Member States,⁽³⁴⁾ as used for own resource purposes. Transversal reservation VI is on the inclusion of IEAs in the NA:

⁽³⁰⁾ Following attempts of BIS and IMF to estimate the flows of laundered money directly on the basis of international banking statistics and the financial accounts, it was concluded that, although deposits covered by international banking and BOP statistics may include a substantial amount of incriminated money, this component cannot be singled out, as it probably accounts for a non-negligible percentage of the totals. In particular, data on banks' liabilities suffer from insufficient coverage of offshore financial centres for this purpose. This issue is discussed further in Chapter 4.

⁽³¹⁾ For instance, if a particular activity is legal in one country but not in another.

⁽³²⁾ 168/1994/EC, Euratom: Commission Decision of 22 February 1994 on measures to be taken for the implementation of Council Directive 89/130/EEC, Euratom on the harmonisation of the compilation of gross national product at market prices (OJ L 77, 19.3.1994, p. 51).

⁽³³⁾ The Commission lodges transversal reservations to reserve its position on the accuracy of all Member States' GNI estimates for EU budgetary purposes due to non-compliance with the ESA. It lodges a specific reservation to reserve its position on an individual Member State's GNI estimate compliance.

⁽³⁴⁾ Croatia joined the EU on 1 July 2013.

VI. Inclusion of illegal activities in national accounts

- The *ESA 95* provides that illegal activities (e.g. prostitution and production of drugs) fall within the production boundary of national accounts (see paragraphs 1.13(g) and 3.08, last paragraph). The sources and methods used need to be reviewed in order to ensure that illegal activities are properly included in the national accounts.
 - A GNP Committee Task Force concluded its work and presented its results to the GNP Committee in December 2002. The Task Force encouraged Member States to develop studies and research, particularly concerning the three activities which should have the most significant impact on GDP/GNI: drugs, prostitution, and smuggling of alcohol and tobacco.
 - The GNI Committee discussed the issue of the inclusion of prostitution, drugs and smuggling between 2008 and 2010 (see in particular GNIC/108, GNIC/139 and GNIC/181).
 - Following the conclusions of the Task Force and the subsequent discussions mentioned above, the coverage of the relevant illegal activities and the appropriateness of sources and methods used need to be reviewed.
29. Subsequently, the GNI Committee discussed the inclusion of IEAs in NA with a view to agreeing minimum standards to be fulfilled before the reservation could be lifted. These discussions also addressed the problem of possible doublecounting of transactions.⁽³⁵⁾
30. At its 24th meeting (10-11 July 2012), the GNI Committee reached clear conclusions on the reasons for including IEAs in the NA. The *ESA 95* (paragraphs 1.13g and 3.08, last sentence) clearly requires that illegal activities that have the characteristics of an economic transaction⁽³⁶⁾ be included in the measurement of GDP/GNI. It also defines illegal activities as transactions generally forbidden by national law, recognising that the distinction between 'legal' and 'illegal' can vary between countries.
31. The Committee's justification for including IEAs concluded by pointing out that no general provision in the *ESA 95* allows for phenomena to be excluded from the production boundary on the grounds that they are difficult to measure or estimate. On the other hand, the Committee would assess the reliability, comparability and exhaustiveness⁽³⁷⁾ of GNI and its components taking account of the cost/benefit principle⁽³⁸⁾ (see footnote 4 in Chapter 1). The application of this principle should not involve committing disproportionate resources to calculating insignificant items.⁽³⁹⁾ The Committee subsequently agreed to define significance in terms of a material threshold, which was set at 0.1 % of a country's GNI.

2.5.2. IEAs in the statistical guidance

32. In order to maintain and enhance consistency, the *BPM5* was updated in parallel, *inter alia*, with the *1993 SNA*. In general, greater consistency should be sought between national accounts and balance of payments statistics. Thus, the *BPM6* explicitly recognised that IEAs must be treated in the same way as legal activities. In the EU, the statistical treatment of IEAs was already provided for in *ESA 95* and *ESA 2010*.
33. [Box 3: References to IEAs in the ESA 2010, the 2008 SNA, and the BPM6](#) presents a summary of the guidance in statistical manuals for the compilation of IEAs. This guidance focuses on five areas:
- inclusion in the production boundary of illegal activities based on mutual agreement;
 - kinds of illegal activity;
 - rationale for the inclusion of illegal activities;
 - the distinction between non-observed and illegal production; and
 - adjustments to the international merchandise trade statistics (IMTS).

⁽³⁵⁾ See Chapter 3.

⁽³⁶⁾ See *ESA 95*, paragraphs 1.33 and 1.42.

⁽³⁷⁾ National accountants are particularly concerned to ensure that all economic activity within the SNA production boundary is measured comprehensively; this is often referred to as the 'exhaustiveness' of NA coverage. In practice, it means ensuring that the accounts reflect the value of illegal or hidden production activities (i.e. the 'underground' or 'hidden' economy) and those that are simply described as 'informal' (see *2008 SNA*, paragraph 19.35).

⁽³⁸⁾ As a general point, it is essential closely to follow market developments and trends as regards IEAs. Collaboration with agencies, interest groups, etc. is key for a proper understanding of individual markets and the ability to adapt estimates to changes and new or improved data sources.

⁽³⁹⁾ Results from country studies indicate that the impact of IEAs on GDP/GNI in the EU was around 0.5 % in 2010. This is based on Member States' initial efforts to implement GNI Committee recommendations; for more information, see:

http://ec.europa.eu/eurostat/statistics-explained/index.php?title=Annual_national_accounts_-_how_ESA_2010_has_changed_the_main_GDP_aggregates&oldid=282971

Box 3: References to IEAs in the ESA 2010, the 2008 SNA, and the BPM6

| Statistical standard/ Recommendation | Paragraph | Reference |
|--|-----------|--|
| Inclusion in the production boundary of illegal activities with mutual agreement | | |
| <i>ESA 2010</i> | 1.79 | Second part: Illegal economic actions shall be considered as transactions when all units involved enter the actions by mutual agreement. Thus, purchases, sales or barter of illegal drugs or stolen property are transactions, while theft is not. |
| <i>ESA 2010</i> | 3.08 | After listing: The activities listed above in points (a) to (e) are included as production irrespective of being illegal or not-registered at tax, social security, statistical and other public authorities. |
| <i>ESA 2010</i> | 11.26 | First sentence: Value of production activities that are not directly observed are, in principle, included within the national accounts production boundary. Point a) illegal activities where the parties are willing partners in an economic transaction; Last sentence: Illegal activities where either of the parties are not willing participants (e.g. theft) are not economic transactions and so are not included in the production boundary. |
| <i>2008 SNA</i> | 3.96 | Illegal actions that fit the characteristics of transactions (notably the characteristic that there is mutual agreement between the parties) are treated the same way as legal actions. |
| <i>2008 SNA</i> | 3.97 | However, many illegal actions are crimes against persons or property that in no sense can be construed as transactions. For example, theft can scarcely be described as an action into which two units enter by mutual agreement. Conceptually, theft or violence is an extreme form of externality in which damage is inflicted on another institutional unit deliberately and not merely accidentally or casually. Thus, thefts of goods from households, for example, are not treated as transactions and estimated values are not recorded for them under household expenditures. |
| <i>BPM6</i> | 3.5 | Illegal transactions are treated the same way as legal actions. Illegal transactions are those that are forbidden by law. Illegal economic actions are transactions only when the institutional units involved enter the actions by mutual agreement. Otherwise, they are other flows. Macroeconomic statistics, including international accounts, cover all economic phenomena irrespective of whether they are illegal or legal. Differences in the definition of illegal transactions between economies or within an economy over time would cause inconsistencies in the international accounts if illegal transactions were omitted. Furthermore, illegal transactions generally affect other legal transactions (e.g., certain legal external financial claims may be created through illegal exports of goods). Thus, exclusion of illegal transactions could lead to an imbalance in the international accounts. |
| <i>BPM6</i> | 10.17 | First sentence: Because there is a change of ownership of goods between a resident and a non-resident, the following cases are included in the BOP definition of general merchandise: Point i) Illegal goods; |
| Kinds of illegal activity | | |
| <i>2008 SNA</i> | 6.43 | There are two kinds of illegal production: a) The production of goods or services whose sale, distribution or possession is forbidden by law; b) Production activities that are usually legal but become illegal when carried out by unauthorised producers; for example, unlicensed medical practitioners. |
| <i>2008 SNA</i> | 6.44 | Examples of activities that may be illegal but productive in an economic sense include the manufacture and distribution of narcotics, illegal transportation in the form of smuggling of goods and of people, and services such as prostitution. |
| <i>2008 SNA</i> | 6.45 | Both kinds of illegal production are included within the production boundary of the SNA provided they are genuine production processes whose outputs consist of goods or services for which there is an effective market demand. The units that purchase smuggled goods, for example, may not be involved in any kind of illegal activities and may not even be aware that the other party to the transaction is behaving illegally. |

| Statistical standard/ Recommendation | Paragraph | Reference |
|--|-----------|---|
| Rationale for the inclusion of illegal activities | | |
| 2008 SNA | 3.96 | The production or consumption of certain goods or services, such as narcotics, may be illegal but market transactions in such goods and services have to be recorded in the accounts. If expenditures on illegal goods or services by households were to be ignored on grounds of principle, household saving would be overestimated and households presumed to obtain assets that they do not in fact acquire. Clearly, the accounts as a whole are liable to be seriously distorted if monetary transactions that in fact take place are excluded. It may be difficult, or even impossible, to obtain data about illegal transactions, but in principle they should be included in the accounts if only to reduce error in other items, including balancing items. |
| 2008 SNA | 6.45 | Transactions in which illegal goods or services are bought and sold need to be recorded not simply to obtain comprehensive measures of production and consumption but also to prevent errors appearing elsewhere in the accounts. The incomes generated by illegal production may be disposed of quite legally, while conversely, expenditures on illegal goods and services may be made out of funds obtained quite legally. The failure to record illegal transactions may lead to significant errors within the accounts if the consequences of the activity are recorded in the financial account and the external accounts, say, but not in the production and income accounts. |
| Borderline between non-observed and illegal production | | |
| 2008 SNA | 6.42 | There may be no clear borderline between the non-observed economy and illegal production. For example, production that does not comply with certain safety, health or other standards could be described as illegal. Similarly, the evasion of taxes is itself usually a criminal offence. However, it is not necessary for the purposes of the SNA to try to fix the precise borderline between non-observed and illegal production as both are included within the production boundary in any case. It follows that transactions on unofficial markets that exist in parallel with official markets (for example, for foreign exchange or goods subject to official price controls) must also be included in the accounts, whether or not such markets are actually legal or illegal. |
| 2008 SNA | 19.35 | National accountants are particularly concerned about ensuring that the whole of economic activity within the SNA production boundary is measured comprehensively. This is often referred to as the 'exhaustiveness' of the coverage of the national accounts. In practice, it means ensuring that the value of production activities that are illegal or hidden (that is, the 'underground economy' or the 'hidden economy') as well as those that are simply described as informal is included in the accounts. In principle, for the SNA, the remuneration of all these workers should be included in either compensation of employees or mixed income. Therefore, when looking at comparisons between labour statistics and output, it is important the persons concerned should be included in labour statistics also. |
| Adjustments to the IMTS | | |
| ESA 2010 | 18.27 | Other adjustments to IMTS may be needed to bring estimates into line with the change of economic ownership of goods, either generally or because of the particular coverage of each country. Possible examples include merchanting, non-monetary gold, goods entering or leaving the territory illegally, and goods procured in ports by carriers. |
| 2008 SNA | 26.53 | Other adjustments to IMTS may be needed to bring estimates into line with the change of economic ownership of goods, either generally or because of the particular coverage of each country. Possible examples include merchanting, non-monetary gold, goods entering or leaving the territory illegally, goods procured in ports by carriers, and goods moving physically but where there has been no change of ownership. |

2.6. Core accounting principles

34. This section considers the concepts of 'transactions', 'mutual agreement', 'other flows', 'valuation', 'institutional unit' and 'residence'. Unless otherwise specified, these concepts are applicable throughout the *Handbook*.

2.6.1. Transactions

35. In all aspects of their economic functions and activities, institutional units undertake many elementary economic actions, which result in economic flows that create, transform, exchange, transfer or extinguish an economic value. Most economic actions are based on mutual agreement between institutional units; they are either an exchange of economic value or a voluntary transfer without a counterpart. Such actions are 'transactions' in the context of national accounts and balance of payments statistics.
36. Transactions recorded in the BOP are interactions between a resident and a non-resident institutional unit. Transactions between two resident institutional units in external assets are domestic transactions, but they affect the external asset position of the resident units in question⁽⁴⁰⁾ (see *BPM6*, paragraphs 3.6 and 3.7).

2.6.2. Mutual agreement

37. 'Mutual agreement' is an interaction between institutional units whose prior knowledge of and consent to the exchange of economic value or to the voluntary transfer is implied (see *ESA 2010*, paragraph 1.79 and *BPM6*, paragraph 3.4).

2.6.3. Other flows

38. 'Other flows' are genuine economic phenomena and capture changes in assets and liabilities between opening and closing positions that are not due to transactions.⁽⁴¹⁾ In the context of national and international accounts, they are changes in the volume, value or classification of an asset or liability that do not result from a transaction (in the case of international accounts, a transaction between a resident and a non-resident). In international accounts, they are recorded only for financial assets and liabilities that represent claims on and liabilities to non-residents, and gold bullion, because the international investment position relates only to external financial assets and liabilities (see *BPM6*, paragraph 3.19). In the NA, they are recorded for financial and non-financial assets and liabilities.

2.6.4. Valuation

39. Transactions are valued at the actual price agreed by the transactors. Market prices are thus the basic reference for valuation in the NA system. They refer to current exchange value, i.e. the values at which goods and other assets, services and labour are or could be exchanged for cash. They are also the basis for valuation in the international accounts. The *2008 SNA* and *BPM6* set out the general principles for the valuation of flows and positions, and discuss the valuation of specific types of flow and position in further detail (see *2008 SNA*, chapter 2, section C.3 and *BPM6*, chapter 3, section E).

2.6.5. Institutional unit

40. An 'institutional unit' is an economic entity characterised by decision-making autonomy in the exercise of its principal function. It either keeps a complete set of accounts or is able to compile one.⁽⁴²⁾ Two main types of unit may qualify as institutional units:
 - households, persons or groups of persons; and

⁽⁴⁰⁾ Such transactions result in changes in the structure of the external asset position and should be recorded in the international accounts as a reclassification of sector holding (i.e. under other changes in financial assets and liabilities).

⁽⁴¹⁾ See also *ESA 2010*, paragraphs 6.01 and 6.02 and *2008 SNA*, paragraph 3.7.

⁽⁴²⁾ The main attributes of an institutional unit are described in *ESA 2010*, paragraph 2.12.

- corporations (quasi-corporations), non-profit institutions and government units – legal or social entities whose existence is recognised by law or society independently of the persons, or other entities, that may own or control them (see *BPM6*, paragraph 4.14).

2.6.6. Residence

41. Each institutional unit is a resident of the single economic territory with which it has the strongest connection, as determined by its centre of predominant economic interest (see *BPM6*, paragraph 4.113). An institutional unit is resident in an economic territory when there exists, within that territory, some location, dwelling, place of production or other premises on which or from which it engages and intends to continue engaging, either indefinitely or over a finite but long period of time, in economic activities and transactions on a significant scale. The location need not be fixed, as long as it remains within the economic territory. Actual or intended location for one year or more is used as an operational definition; although the use of one year as a specific period is somewhat arbitrary, it avoids uncertainty and facilitates international consistency (see *BPM6*, paragraph 4.114).

3

Collecting, compiling/ estimating and reporting IEA transactions in the national accounts and balance of payments statistics accounting frameworks

3.1. Introduction

42. In the following sections, we present initiatives to improve the measurement of the NOE using Eurostat's tabular approach and current requirements, best practices and data sources for the compilation of specific IEAs (prostitution services, the production and trafficking of illegal drugs, and the smuggling of tobacco and alcohol) in national accounts and balance of payments statistics. This chapter includes IEA data for the EU and identifies collection and compilation challenges, such as doublecounting and misclassification. It also provides recommendations on deriving the resident/non-resident and geographical breakdowns required for BOP statistics.

3.2. Ways to measure the NOE, including illegal production

43. Some efforts to measure the NOE,⁽⁴³⁾ including IEAs, started with the classification of NOE activities into groups (see [Box 4: NOE's Activities](#)). Ideally, the groups should be mutually exclusive and exhaustive so that total NOE production will be the sum of the activities. In practice, however, NOE groups are not mutually exclusive.⁽⁴⁴⁾

Box 4: NOE's Activities

NOE activity can be broken down into the following four categories, which reflect a consensus among statisticians and NA experts, and cover the 'problem areas' encountered in achieving the most exhaustive NA estimates:

- **underground activities** – activities that are productive and legal, but are deliberately concealed from public authorities to avoid:
 - payment of income, value added or other taxes;
 - payment of social security contributions;
 - compliance with legal requirements, e.g. minimum wages, maximum hours, safety or health standards, etc.; and
 - compliance with administrative procedures, e.g. completing statistical questionnaires or other administrative forms.
- **illegal activities** – productive activities specifically covered by the SNA production boundary that:
 - generate goods and services forbidden by law (e.g. production and distribution of illegal drugs); or
 - are unlawful when carried out by unauthorised producers (e.g. unlicensed practice of medicine).
- **production by households for own final use** – productive activities that result in goods or services consumed or capitalised by the households that produced them, e.g. production of crops and livestock, production of other goods

⁽⁴³⁾ See [Box 3: References to IEAs in the ESA 2010, the 2008 SNA, and the BPM6](#) for more information on the NOE.

⁽⁴⁴⁾ Mutually exclusive groups can readily be derived by selecting one of the groups as the first group and defining subsequent groups to exclude any activity already included in the previous group (see OECD et al.: *Measuring the non-observed economy: a handbook*, OECD Publishing, Paris 2002, paragraph 3.27).

for their own end use, construction of own houses and other ownaccount fixed capital formation, imputed rents of owner-occupiers and services of paid domestic servants; and

- **non-observed informal activities** (part of the [informal sector](#) also covering observed activities undertaken informally) – in general, informal activities are productive activities conducted by unincorporated enterprises in the household sector that are unregistered and/or are fall below a specified size threshold in terms of employment, and that have some market production.

Source: OECD et al.: *Measuring the non-observed economy: a handbook*, OECD Publishing, Paris 2002, Chapter 3

44. The extent, impact and structure of the NOE vary considerably from country to country, depending on many factors, including:
- the structure and development of the economy;
 - legislation;
 - the organisation of the national statistical system; and
 - political interest.

3.3. Eurostat's tabular approach

45. The tabular approach relates to NOE areas with statistical problems encountered by national accountants (see [Box 5: Eurostat's tabular approach – types of non-exhaustiveness](#)).⁽⁴⁵⁾ The main aims are to ensure that the NOE is measured systematically, potential areas are covered and no activities are doublecounted. Using the same framework facilitates country comparisons, methodology consistency and exchanges of experience in implementation.

Box 5: Eurostat's tabular approach – types of non-exhaustiveness⁽⁴⁶⁾

Not registered

- N1 - Producer deliberately not registering - underground
Producer deliberately does not register to avoid tax and social security obligations. Most often this refers to small producers with turnovers that exceed threshold levels above which they should register. Producers that do not register because they are engaged in illegal activities fall under type N2. Type N1 does not include all underground activities, some of which are associated with type N6.
- N2 - Producers deliberately not registering - illegal
Producer deliberately does not register as a legal entity or as an entrepreneur because it is involved in illegal activities. Type N2 excludes illegal activities by registered legal entities or entrepreneurs that report (or misreport) their activities under legal activity codes.
- N3 - Producers not required to register
Producer is not required to register because it has no market output. Typically these are non-market household producers that engage in production of goods for own consumption, for own fixed capital formation, and construction of and repairs to dwellings. Or, producer has some market output but it is below the level at which the producer is obliged to register as an entrepreneur.

⁽⁴⁵⁾ In order to facilitate comparison across countries and *improve* the exhaustiveness of NA, Eurostat carried out two rounds of [pilot projects on exhaustiveness \(PPE\)](http://www.oecd.org/std/na/2069430.pdf) to address differences in concepts, definitions and methods, and to identify types of non-exhaustiveness; <http://www.oecd.org/std/na/2069430.pdf>.

⁽⁴⁶⁾ See UNECE: *Non-Observed Economy in National Accounts – Survey of Country Practices*, United Nations Publication, New York and Geneva 2008; <http://www.unece.org/fileadmin/DAM/stats/publications/NOE2008.pdf>.

Not surveyed

- N4 - Legal persons not surveyed

Legal persons not surveyed due to several reasons such as: the business register is out of date or updating procedures are inadequate; the classification data (activity, size or geographic codes) are incorrect; the legal person is excluded from the survey frame because its size is below a certain threshold etc. This leads to (systematic) exclusion of the legal person from surveys when in principle they should be included.

- N5 - Registered entrepreneurs not surveyed

Registered entrepreneurs may not be surveyed due to a variety of reasons: the statistical office does not conduct a survey of registered entrepreneurs; the registered entrepreneur is not in the list of registered entrepreneurs available to the statistical office, or if available, is systematically excluded from it; the registered entrepreneur is not in the survey frame because the classification data (activity code, size code, geographic code) are incorrect.

Misreporting

- N6 - Producers deliberately misreporting

Gross output is under-reported and/or intermediate consumption is overstated, in order to evade income tax, value added tax (VAT), other taxes, or social security contributions. Misreporting often involves maintenance of two sets of books, payments of envelope salaries which are recorded as intermediate consumption; payments in cash without receipts, and VAT fraud.

Other

- N7 - Other statistical deficiencies

Type N7 is subdivided into N7a - data that are incomplete, not collected or not directly collectable, and N7b - data that are incorrectly handled, processed or compiled by statisticians. The following areas should be investigated: handling of non-response; production for own final use by market producers; tips; wages and salaries in kind; and secondary activities.

3.3.1. Methods and sources for NOE types

46. The main methods used in estimating the NOE types can be classified in two categories:

- **methods based on modelling techniques.** Macro-economic models (e.g. monetary models, global indicator method) provide an estimate of the NOE, but should be avoided; the use of available basic data is preferred. Where modelbased assumptions are unavoidable, they should be applied at the most detailed available level, because it has been shown that the results are sensitive to data transformations, units of measurement and the sample used. No one standard method applied internationally; several methods or combinations of methods are usually applied, depending on national characteristics.
- **statistical methods**, such as direct estimates based on direct surveys (e.g. on expenditure, income, labour, timeuse or opinion) or indirect estimates based on available data sources;

Box 6: Indirect statistical compilation/estimation approaches

- **Supply-based approach** (including the labour input approach) – this relies on data on the supply of inputs (number of primary raw materials, one major raw material, labour, land, fixed capital stock, etc.) that are used to produce goods and services. Input/output and input/valueadded ratios are needed to calculate output and valueadded estimates from the input data;
- **Demand-based approach** – this assesses production using indicator data on specific uses of goods and services that sufficiently describe their production: household final consumption expenditures on a certain commodity (e.g. health and personal services); uses of raw materials (e.g. processing of agricultural

products; major export commodities; administrative data indicating demand for a product (e.g. motor vehicle registrations, building permits), etc.;

- **Income-based approach** – this is based on available data from administrative sources on some categories of income, which can be used to obtain an indication of production covered by the administrative system (income taxes, social security contributions paid by self-employed persons or private entrepreneurs, etc.);
- **Commodity flow approach** – this involves balancing total supplies and uses of individual products using accounting equations. One specific application is calculating the output of the retail trade from supply of commodities.

47. Several data sources, such as agricultural censuses, business statistics, household surveys, demographic data/population censuses, labour force surveys/labour statistics, taxation and fiscal data, police records, social security records and foreign trade statistics, are quite common. Some, particularly surveys for capturing a specific activity (e.g. tobacco smuggling), are used in no more than a few countries.
48. The procedures involved in incorporating NOE production into GDP estimates are complex, because:
- some yield estimates of total production for a specific activity without separately identifying types of NOE activity;
 - *ad hoc* supplementary data are often required to make efficient use of existing sources (estimates of value added can be derived from output estimates obtained from a commodity flow method using a valueadded/output ratio calculated from an *ad hoc* study);
 - compilation should be based on detailed and specific adjustments using specific sources and known linkages and relationships; and
 - where possible, alternative estimates should be derived, compared and assessed for plausibility of results. Data relating to similar topics but from different sources should be compared and analysed to identify errors or gaps. Assumptions underlying estimation procedures should be made explicit in calculations and reviewed regularly for their plausibility.

3.3.2. Compilation methods proposed within the national accounts framework for IEA statistics: demand and supply approaches

49. National accounts and balance of payments statistics compilers face three major challenges when trying to estimate IEAs:
- availability of reliable sources, and measurement problems;
 - suitable compilation practices that *inter alia* reduce the risk of doublecounting of production when adding explicit estimates of IEAs; and
 - best estimation methods and accuracy of the estimates.
50. As for all goods and services in NA, a general method for measuring IEAs is to start from the basic NA 'identity', i.e. the supply of a good or a service is equal to its use. It is important to compile supply (production and import) and use (final consumption, gross capital formation and export) data separately from independent sources⁽⁴⁷⁾ and to confront the estimates (compare, contrast and reconcile differences). For IEAs, the traditional data sources used for estimating legal activities (i.e. business, household and labour force surveys) are useful, but liable to lead to under-estimation, so they have to be complemented with direct methods, in particular *ad hoc* surveys, and indirect methods using police data (the main data sources for the compilation of estimates).
51. For a given illegal activity, data have to be collected independently on each of the approaches used to compile GDP, i.e. the production, expenditure and income approaches. It is better to start the analysis from the most reliable approach and the basic NA identity can then be used to estimate the missing data.

⁽⁴⁷⁾ This ideal approach might not always be feasible for illegal production.

52. Usually, supply approach data from producers and importers are more reliable than demand approach data from consumers, investors and exporters, as the number of producers and importers is relatively small compared with the number of consumers and investors. However, supply approach data are not always more reliable in the case of IEAs, where producers and importers make every effort to hide their transactions. For the production and trafficking of drugs, for example, where supply approach data (based on quantities seized) are potentially too unstable, the GNI Committee recommends starting with the demand approach (based on an estimate of the quantity of drugs consumed). With prostitution, on the other hand, the Committee recommends starting with the supply approach, with an estimate of the number of prostitutes in the country and a suitable breakdown for different types of prostitution.
53. After information has been derived from the above data and initial adjustments made between the different approaches, the best tool for verifying the overall consistency of the estimates and adjustments is a detailed supply and use framework.

3.3.3. Risk of double counting

54. There is a significant risk of double counting production, expenditure and income when adding together explicit estimates of IEAs. Estimates for illegal production and consumption should not be simply added to data on legal activities, because the latter may already include part of the former and there may be double counting.⁽⁴⁸⁾ When formulating its recommendations, the GNI Committee briefly discussed the potential for double-counting of transactions when it came to the inclusion of IEAs and the issue of money laundering, and recognised that further research was required. The following draws on points made in those discussions, but expands on some areas, particularly as regards money laundering. Additional research on the content of the source data is needed to avoid double counting and misclassification.

3.3.4. Business register issues

55. Units engaged in IEAs may already be included in the business register,⁽⁴⁹⁾ either in the correct NACE⁽⁵⁰⁾ category or hiding their activity in a different category. This is of course also linked with the money laundering problem (see below). However, NA face a similar problem as regards concealed legal activities; for example, if units engaged in legal prostitution or massage parlours appear in the business register, their output, etc. needs to be taken into account when adding estimates for legal activities. The aim is to achieve exhaustive estimates.

3.3.5. False recording of economic transactions

56. Double-counting may result from IEAs being recorded falsely in the source statistics; for example:
- intermediate consumption (IC)⁽⁵¹⁾ may be wrongly recorded as household final consumption expenditure (HFCE) for prostitution services, 'home' production of drugs, transport activities in smuggling or trafficking;
 - household expenditure on prostitutes, drugs or smuggled goods may be included in other categories of the household budget survey (HBS);
 - imports or exports of drugs or contraband may be declared as different goods and entered wrongly in the statistics (e.g. drugs in fruit containers); and
 - part of income earned illegally may be reported as coming from different activities.

⁽⁴⁸⁾ For instance, enterprises may over-report legal activities in attempts to legitimise incomes from illegal activities. Uses of legally produced goods and services as inputs in illegal production may have been included implicitly, but wrongly classified. Enterprises engaging in illegal activities sometimes register them as legal activities for tax purposes and this affects grossing-up factors for surveys in the legal activities.

⁽⁴⁹⁾ N.B. the fact that a unit is covered in a survey does not necessarily mean that its total production is covered.

⁽⁵⁰⁾ *Statistical classification of economic activities in the European Community.*

⁽⁵¹⁾ Intermediate consumption consists of goods and services consumed as inputs by a process of production, excluding fixed assets the consumption of which is recorded as consumption of fixed capital. The goods and services are either processed or used up by the production process (see *ESA 2010*, paragraph 3.88).

57. While none of these problems are unique to IEAs, they may be particularly relevant in this context. The wrong recording of IC as HFCE needs to be corrected. This could be done by identifying the major activities concerned, e.g. prostitution in apartments or home growers of cannabis, and rebooking relevant IC identified in the estimates.
58. False reporting of types of expenditure in the HBS is a wellknown problem, even for legal consumption. In any case, care must be taken to detect under- or wrong reporting of these activities in the HBS. A wrong declaration in exports or imports of goods is difficult to capture in statistics. However, it could be argued that the values involved are not relevant, in the sense of significantly distorting the aggregates concerned and contributing to substantial doublecounting.
59. It is difficult to make general recommendations on how to tackle these problems, because the best approach will depend on the sources and methods used in the country in question. The best tool for verifying at least the overall consistency of estimates and adjustments is a detailed supply and demand framework for individual products; such analysis will minimise the false recording of transactions at product level. Although this work is likely to require substantial resources, it seems to be the only way of establishing whether IEAs are implicitly included in GDP under other categories. Furthermore, the results may provide valuable input for estimates of illegal production. Also, the contents of the basic data used for the regular compilation of NA should be examined carefully, in particular by screening the enterprises in the business registers that are most likely to be involved in illegal production and adjusting for possible false recordings in production, households' final consumption, imports and exports.
60. As regards moneylaundering and the risk of doublecounting, deficits generated deliberately by over- or under-invoicing the exchange of goods can be balanced with incriminated cash or non-cash in the import or export nation in question. International corporate conglomerates, the use of bogus businesses and long chains of international transactions impede the fight against moneylaundering (see Chapter 4).
61. Another doublecounting risk relates to expenditures on legal items by units involved in IEAs. Here, the use of legal goods and services to produce illegal products (e.g. energy, lamps, fertiliser, seeds, ventilation and nutrition systems to grow cannabis) may give rise to particular problems. Some of the outlays are probably included in final consumption or gross fixed capital formation of households or as IC for horticulture.

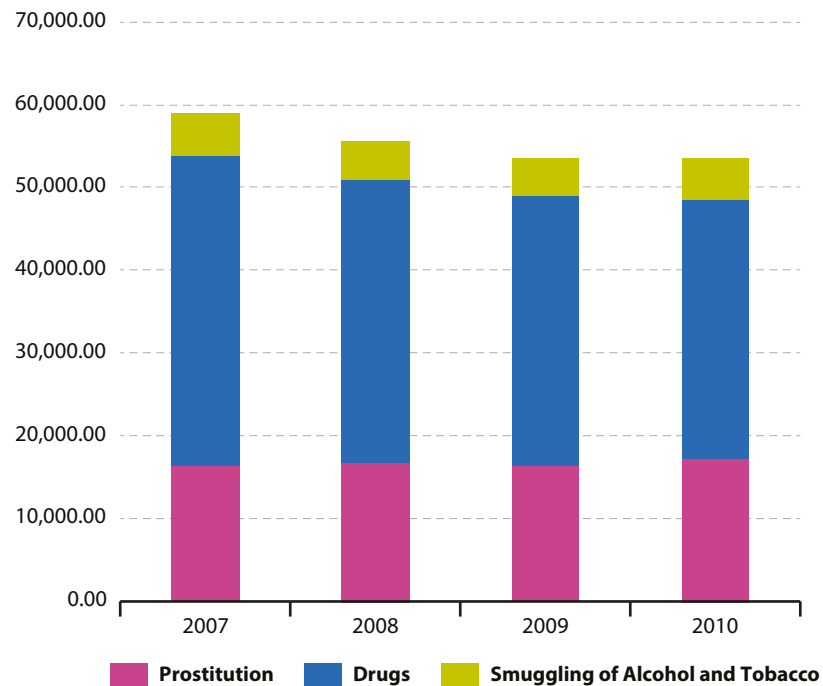
3.3.6. EU IEA statistics in national accounts

62. By September 2014, all 27 Member States subject to transversal reservation VI had included estimates of the three types of IEA (prostitution, the trafficking and production of illicit drugs, and the smuggling of alcohol and tobacco products) in their GDP/GNI estimates⁽⁵²⁾. Eurostat assessed their methodologies and estimates in 2015 and the reservation was lifted in all cases.
63. In 2007–2010, the average value added of the three main types of IEA in the EU27⁽⁵³⁾ was EUR 55.4 billion. Figure 1 shows their value added and Figure 2 shows their percentage contributions to EU27 GDP.

⁽⁵²⁾ Although *ESA 95* required that illegal activities be included in NA, it was common practice in the majority of Member States to exclude them. The main reasons were concerns regarding the quality of the estimates and in particular that the comparability of NA data between countries would be jeopardised. After lengthy debate, the GNI Committee concluded that *ESA 2010* should require the inclusion of IEAs in Member States' NA.

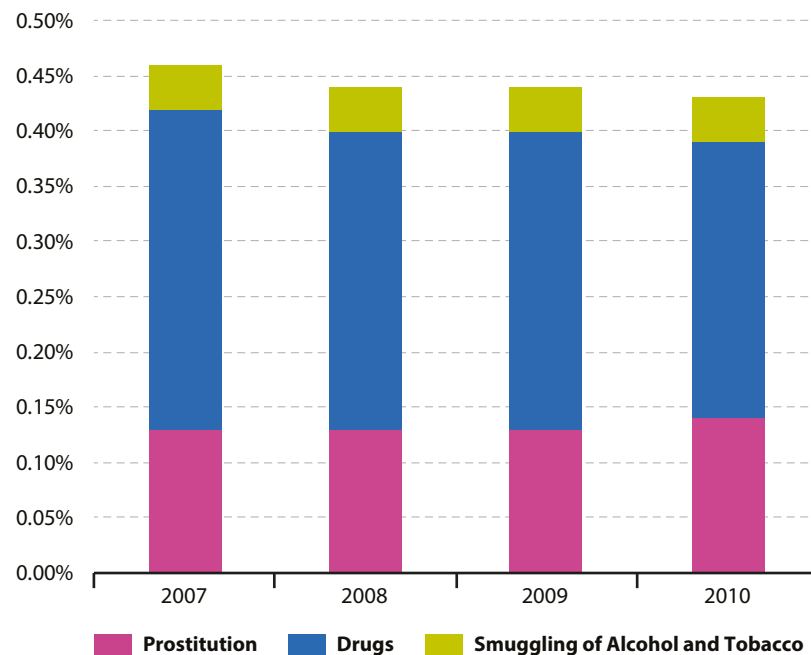
⁽⁵³⁾ This estimate excludes Croatia, as it did not join the EU until 1 July 2013. Classification of individual consumption by purpose (COICOP) household consumption for prostitution and narcotics data are also available, with in-progress coverage; [http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Classification_of_individual_consumption_by_purpose_\(COICOP\)](http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Classification_of_individual_consumption_by_purpose_(COICOP))

Figure 1: Value added from IEAs, EU27 (EUR millions)



Source: Eurostat

Figure 2: IEAs' contribution to EU27 GDP (%)



Source: Eurostat

3.3.7. How to measure and estimate IEA statistics in national accounts

- 64. Experience from studies by various countries shows that IEA estimates can vary widely, depending on the approach taken and the assumptions used. This section concentrates on recommended best practice

for measuring and/or estimating the value of IEAs before balancing the different approaches to GDP and irrespective of possible strategies to avoid doublecounting.

65. The main aim of the IEA estimation process is to calculate the gross value added (GVA) of IEAs. The sum of GVA for the whole economy yields the value of GDP. The concept of value added is of particular importance as regards drugs, as NA estimate the value added generated in the domestic economy from the trafficking of illicit drugs (rather than the value of the drugs themselves)⁽⁵⁴⁾ and therefore the contribution of the IEA to GDP.

3.4. Prostitution

66. For prostitution services⁽⁵⁵⁾, the situation for compilers is particularly blurred, as prostitution (at least in certain forms) is legal in many countries. There is a clear need to include legal and concealed prostitution services in NA estimates. At the same time, prostitution services that do not have the characteristics of an economic transaction, i.e. those not based on mutual agreement; must be excluded from the measurement⁽⁵⁶⁾.
67. Incorporating prostitution into national accounts and balance of payments statistics neither implies a moral assessment nor does it presume that exploitation is absent. It merely acknowledges the market-oriented nature of prostitution, whereby someone intentionally pays for a service which is willingly provided. The provision of prostitution services not based on mutual agreement has to be identified and excluded from the accounts. There is therefore mutual agreement at the point of the transaction, but not necessarily in the organisation of sex work in general.

3.4.1. Data sources

68. Clearly, standard data sources, such as administrative (e.g. tax, social security) records or business surveys, do not provide reliable data even on legal prostitution. However, in all countries, at least some data sources are available. In most cases, these are *ad hoc* studies on the subject or irregular reports by police, government institutions or welfare organisations. In some countries, regular reports are available. Generally, the available data sources do not suit NA purposes as such but can be used as a basis for further estimates. Countryspecific reports and studies could be supplemented with information from AIDS/STI prevention among migrant prostitutes in Europe (TAMPEP) project reports⁽⁵⁷⁾.
69. Demandside studies do not seem suitable for estimates of services rendered by prostitutes; either the methodology is unsuitable for NA purposes or the results are not representative or reliable enough. Estimates based on the supply of prostitution services generally seem to be more suitable for NA estimates. The supply-side approach is presented below in the basic model for prostitution.

⁽⁵⁴⁾ The estimate of the value of illicit drugs would be the value given as HFCE, i.e. the sum of value added generated from the entire production process, which could cross a number of economies.

⁽⁵⁵⁾ When entered into by mutual agreement, engaging in sexual activity in return for payment can be classified as an economic transaction.

⁽⁵⁶⁾ Directive 2011/36/EU of the European Parliament and of the Council of 5 April 2011 on preventing and combating trafficking in human beings and protecting its victims, and replacing Council Framework Decision 2002/619/JHA (OJ L 101, 15.4.2011, p. 1) and the UN protocol to prevent, suppress and punish trafficking in persons, especially women and children, supplementing the UN Convention against transnational organised crime (adopted and opened for signature, ratification and accession by General Assembly Resolution 55/25 of 15 November 2000) state that exploitations includes, as a minimum, the exploitation or the prostitution of others or other forms of sexual exploitation, forced labour or services, including begging, slavery or practices similar to slavery, servitude or exploitation of criminal activities, or the removal of organs. Also, the 'consent' of a victim of human trafficking to the exploitation, whether intended or actual, is irrelevant where means such as the threat or actual use of force or other forms of coercion, abduction, fraud, deception, abuse of power or of a position of vulnerability, or giving or receiving of payment or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation, have been used. This *Handbook* recognises the links between prostitution and the trafficking of human beings, but for the purposes of compiling NA and BOP statistics, covers only prostitution services provided by mutual agreement. This issue is discussed further in Chapter 4.

⁽⁵⁷⁾ TAMPEP is the European network for HIV/STI prevention and health promotion among migrant sex workers; <http://tampep.eu/documents.asp?section=reports>

3.4.2. Basic model for estimates of prostitution services

70. A starting point is to estimate the number of prostitutes in the country. Depending on national circumstances and available data sources, this should be broken down by different types of prostitution service.⁽⁵⁸⁾ In some countries, it could be useful to differentiate further, between legal and illegal prostitution. For each type of prostitution, the average number of contacts per prostitute per period should be estimated in order to produce the total number of contacts. For some countries, estimates of average prices for different types of prostitution seem to be relatively freely available.⁽⁵⁹⁾ With this information, it is possible to calculate sales (output) by type of prostitution and total sales (output):

*Equation 1: total sales_i = number prostitutes_i x number contacts per prostitute_i x price_i
Equation 2: domestic output_i (P.1) = total sales_i x (1 - proportion of non-resident prostitutes_i)
where: 'i' = type of prostitution service*

71. Prostitution services may be offered by residents or non-residents. Non-resident prostitutes are those working for less than one year and not continuously in the country (no centre of economic interest). The proportion of non-resident prostitutes by type of prostitution should be estimated⁽⁶⁰⁾ in order to calculate the domestic output⁽⁶¹⁾ and import of services, which occurs when non-resident prostitutes have resident clients. Only the residents' domestic output (P.1)⁽⁶²⁾ and GVA (B.1g) has to be recorded in the compilation of GDP and GNI.⁽⁶³⁾

Equation 3: import of services_i (P.72) = proportion of non-resident prostitutes_i x total sales_i to residents

72. Note: The residents' GVA created is at the same time considered as mixed income (B.3g)
73. IC is relevant for some types of prostitution activity. It should therefore be estimated and deducted in order to estimate GVA by type of prostitution. It is likely that certain products recorded as IC for prostitution services are included in HFCE, in which case a corresponding counterbooking needs to be done in HFCE. Also, if rental payments are recorded as relevant IC for prostitutes (e.g. payments to owners of brothels, clubs and apartments), recording in the output for rental activities needs to be consistent. If this transaction is not (or not fully) included, it needs to be added separately as rental output.

Equation 4: GVA = \sum GVA_i = domestic output_i - IC_i

74. Prostitutes (including those working in clubs, brothels, etc.) are generally considered to be self-employed, i.e. no employer/employee relationship is assumed. It is also assumed that all prostitution services are consumed by households. No relevant amounts appear in the IC of enterprises. Essentially, it is assumed that the consumer is always a household and any rerouting of income from corporations to households to account for corporations purchasing the service on behalf of households (employees and/or clients) is ignored.
75. The domestic output may be purchased by resident or non-resident households. The proportion consumed by the latter (tourists in the compiling country and clients outside the compiling country) needs to be estimated, e.g. on the basis of expert estimates or specific studies.⁽⁶⁴⁾

*Equation 5: export of services_i (P.62) = domestic output_i x proportion of non-resident households_i
Equation 6: HFCE (P.3 for S.14) = domestic output x (1 - proportion of non-resident households)
where 'HFCE' = household final consumption expenditure of those consuming prostitution services*

76. For some countries, it may also be relevant to account for resident households purchasing prostitution services from non-resident prostitutes not only on domestic territory, but also when travelling abroad (import of prostitution services). This element of expenditure can be included in the travel balance, so it

⁽⁵⁸⁾ The types of prostitution service are typically street prostitution, brothels, apartments, escorts, elite, etc.

⁽⁵⁹⁾ See Chapter 5 (country cases) for examples of these calculations.

⁽⁶⁰⁾ See Chapter 5 (country cases) for examples of these calculations.

⁽⁶¹⁾ The calculation of the domestic product of resident prostitution services includes services provided to resident and non-resident clients.

⁽⁶²⁾ The parenthesis contains the ESA 2010 classification coding (see ESA 2010, Chapter 23).

⁽⁶³⁾ Imports of prostitution services and exports of such services (i.e. resident prostitutes providing services to nonresident clients when the client is a tourist in the compiling country or is outside the compiling country) also have to be calculated for BOP.

⁽⁶⁴⁾ See Chapter 5 (country cases) for examples of these calculations.

does not have to be identified separately in the NA. The corresponding amounts should be included as HFCE and imports (P.72). As mentioned in footnote 61, import and export estimates are of interest for the purposes of cross-country comparisons and consistency checks for NA (within this macroeconomic dataset) and BOP (other dataset).

3.4.3. How to classify prostitution services

77. Assuming that the producer unit is self-employed (see above), all entries to be recorded between residents and non-residents in the NA fall within the boundary of GDP and there are no further transactions to be recorded in the transition from GDP to GNI. However, there is a need to investigate carefully whether any part(s) of these transactions are already recorded in the existing estimates. This applies particularly to the recording in the BOP of personal travel or business travel items.
78. If it is not appropriate in a Member State to record the producer unit as selfemployed, the crucial question is whether there is an employer/employee relationship between resident and non-resident units, which would lead to the recording of cross-border employment and flows of employee compensation to/from ROW (depending on the direction of the relationship). This would then need to be recorded in the transition from GDP to GNI and in the BOP primary account under compensation of employees.
79. However, given the nature of the provision of prostitution services, it is unlikely that an institutional unit would have a more formal enterprise structure, as represented by (quasi)corporations. This removes the potential need to record crossborder property income flows, such as the distributed income of corporations (D.42), in the transition from GDP to GNI.
80. As consumption patterns are relatively stable, it is generally acceptable to extrapolate a benchmark year result for a number of years. Prostitution services should be recorded in *NACE rev 2 category 96.09: 'other personal service activities (escort services)'* and *CPA 2008 product category 96.09.12: 'escort services'* (this sub-category includes *escort services and prostitute services*).

3.5. Trafficking and production of illegal drugs

81. The production and trafficking of drugs is illegal in all EU/EFTA⁽⁶⁵⁾ countries. All country pilot studies covered the following types of psychotropic drug: cannabis, ecstasy, amphetamines (speed), cocaine and heroin (opiates). In some countries, LSD (hallucinogens), Subutex (buprenorphine, illegal use) and narcotic medicines also seem to be relevant.

Box 7: Illegal drug transactions — country types

Based on available pilot studies, the following country types in respect of transactions in drugs seem to be relevant:

- type I: only imports, no (significant) production, no (significant) export;
- type II: only imports, no (significant) production, no (significant) export, transit country for certain drugs;
- type III: imports, production of some drugs for domestic market only, no relevant exports, transit country;
- type IV: imports, domestic production of some drugs for domestic market and for export, reexport of imported drugs, transit country.

⁽⁶⁵⁾ The EFTA countries are Iceland, Liechtenstein, Norway and Switzerland;
<http://www.efta.int/about-efta/the-efta-states>.

3.5.1. Data sources

82. Due to the nature of these activities, it is particularly difficult to identify data sources for the trafficking and production of drugs. Estimates have to rely on the following sources:
- administrative information from police, customs or ministries (reports, expert opinions, etc.);
 - reports from health/welfare or specific drug institutions;
 - research reports;
 - information from drug assistance or other non-profit organisations; and
 - international research projects.
83. These sources do not suit NA purposes as such, they differ in various respects (e.g. population covered, periods covered, type of drug user covered) and so are difficult to compare or combine, and some are only one-off studies or not available regularly.⁽⁶⁶⁾ On the plus side, however, we can say that some information on the production, trafficking or consumption of drugs is available in all countries and experts seem to have an overview of the situation.
84. Important information can also be gleaned from international sources: the annual reports of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)⁽⁶⁷⁾ and the UN Office on Drugs and Crime (UNODC)⁽⁶⁸⁾ provide information on individual countries, give recent background information on the drugs market and enable a valuable comparison of national estimates with other countries'. A number of EU/EFTA countries are covered in *Gender, alcohol and culture: an international study* (GENACIS, 2002)⁽⁶⁹⁾ and the European school survey project on alcohol and other drugs (ESPAD, 2003).⁽⁷⁰⁾
85. Given the available data sources, it has proven useful in some studies to distinguish between 'heavy abuse' (or 'hard drug use' or 'problem drug use') and 'other abuse'. While the various studies do not use identical definitions, the first group tends to comprise daily/almost daily users and the second group brief/experimental to more regular (but not daily/almost daily) users.

Box 8: IEA data sources — illegal drugs

Due to the nature of these activities, it is particularly difficult to produce estimates of drug trafficking. Estimates must rely on various data sources:

- administrative information from police, customs or ministries (reports, expert opinions, etc.);
- reports from health/welfare or specific drug institutions;
- research reports;
- information from drug assistance or other non-profit organisations; and
- international research projects.

Examples are (GNIC recommendations):

- *EMCDDA annual report – seizure data*;
- *EMCDDA annual report – price and purity information*;
- *European drug report, EMCDDA (2007-2013)*;
- *Cannabis production and markets in Europe 2012: EMCDDA insights*; and
- *World drug report, UNODC*.

86. Two basic aspects need to be modelled for the estimation of illegal drug activity:
- the trafficking of drugs; and
 - the production of illegal drugs.

⁽⁶⁶⁾ See country practices in Chapter 5 for examples of how to use these data sources.

⁽⁶⁷⁾ <http://www.emcdda.europa.eu/edr2015>.

⁽⁶⁸⁾ <http://www.unodc.org/wdr2015/>.

⁽⁶⁹⁾ <http://www.genacis.org/>.

⁽⁷⁰⁾ <http://www.espad.org/en/Reports--Documents/>.

3.5.2. Basic model for trafficking of drugs

87. On the basis of available pilot studies, the GNI Committee considered imports of illegal drugs to be relevant for some countries.⁽⁷¹⁾ In a first step, the trafficking of imported drugs⁽⁷²⁾ is analysed by estimating the total domestic consumption of the drugs⁽⁷³⁾, with a breakdown by type of drug, type of user and other factors (determined by national circumstances and available data sources). It should be remembered that hard drug users often use multiple drugs at different frequencies. It is assumed that all drugs are consumed by households. Direct imports of drugs by households are not taken into account, as they are assumed to be negligible.

88. The value of expenditure by type of drug can be estimated on the basis of average street prices:

Equation 7: quantity consumed = quantity consumed by hard drug users + quantity consumed by occasional drug users

*Equation 8: HFCE (P3 for S.14) = quantity consumed x average street price
where*

'HFCE' = household final consumption expenditure of those consuming drugs

Equation 9: quantity consumed by hard drug users = number of hard drug users x dose x usage (days/year)

Equation 10: quantity consumed by occasional drug users = number of occasional drug users x dose x usage (days/usage)

89. Due to dilution,⁽⁷⁴⁾ for certain drugs the imported quantity may differ from the quantity consumed. A purity factor indicates the average dilution of 'pure' drugs before they are put on the market (this dilution is particularly relevant for cocaine and heroin/opiates):

Equation 11: import drug quantity = quantity consumed / purity factor

90. Theoretically, this estimate includes direct imports of drugs by households, but these are assumed to be negligible and therefore included in the later calculations of trade margins. Import value can be estimated on the basis of average 'wholesale' prices:

Equation 12: import (value) of drugs (goods) (P.71) = import drug quantity x average wholesale drug price

Equation 13: drug sales = import drug quantity x average street price

91. Output is the trade margin achieved by the trafficker for drugs sold to households:

Equation 14: domestic output (P.1) = trade margin = drug sales – import (value) of drugs (goods)

92. The trade margin implicitly includes a profit margin achieved by diluting the drug, if applicable. Traffickers' IC (costs for transport and storage) should be estimated on the basis of expert estimates, if not considered negligible.

Equation 15: GVA = trade margin – IC

93. Drug traffickers are considered to be self-employed (resident units or notional resident units). GVA generated on domestic territory is therefore identical to mixed income (B.3g) for these units. Assuming that the drug trafficker unit is self-employed, all entries to be recorded between residents and non-residents in the NA fall within the boundary of GDP and there are no further transactions to be recorded in the transition from GDP to GNI. However, there is a need to investigate carefully whether any part(s) of these transactions are already recorded in the existing estimates.

⁽⁷¹⁾ Eurostat/C3/GNIC/230-Rev 1.

⁽⁷²⁾ The trafficking of imported drugs may have an export element if the diluted drug is sold to non-residents. This is not taken into account, as it is assumed to be less relevant. If this assumption is not justified, the basic model should be adjusted accordingly. The treatment of drugs production (below) refers to domestic production being exported.

⁽⁷³⁾ The quantity consumed is assumed to be produced externally (imported). If this assumption is not justified, the model should be adjusted accordingly.

⁽⁷⁴⁾ i.e. 'cutting' the drug to reduce its purity.

3.5.3. Basic model for domestic output (production) of drugs

94. The quantity of a specific drug produced on domestic territory needs to be estimated, e.g. as a proportion of total domestic consumption or independently.

95. Domestic output (P.1) is estimated on the basis of average street prices:

$$\text{Equation 16: domestic output (P.1)} = \text{quantity produced} \times \text{average street price}$$

96. Output is sold to households only; in some cases, part of domestic production may be exported.⁽⁷⁵⁾

97. The IC for drug production needs to be estimated as a proportion of output on the basis of expert estimates.

$$\text{Equation 17: GVA} = \text{domestic output} - \text{IC}$$

98. Note: Total GVA would be the sum of GVA from trafficking and domestic production; HFCE needs to be balanced between what is imported and what is produced domestically.

3.5.4. How to classify the trafficking and production of drugs

99. The trade margin element of illegal drug trafficking should be recorded in *NACE rev 2 category 47.73: 'dispensing chemist in specialised stores, stalls or markets'* and *CPA 2008 product category 47.00.74: 'retail trade services of pharmaceutical goods'*. Production of cannabis plants, coca bushes or opium poppies should be recorded in *NACE rev 2 category 01.28: 'growing of spices, aromatic, drug and pharmaceutical crops'* and *CPA 2008 product category 01.28.30: 'plants used primarily in perfumery, in pharmacy or for insecticidal, fungicidal or similar purposes'*. Production of illegal synthetic drugs (LSD, ecstasy, amphetamines, etc.) should be recorded in *NACE rev 2 category 21.20: 'manufacture of pharmaceutical preparations'* and *CPA 2008 product category 21.20.23: 'diagnostic reagent and other pharmaceutical preparations'*.

3.6. Smuggling of alcohol and tobacco

100. Smuggling is the illegal import or export of goods which are legal *per se*. The incentive stems from the legislative context (e.g. prohibition or restrictions on trading the good in a country) or unusually high price differences, often due to import duties or excise taxes. This could cover a wide variety of goods, but (as recommended by the GNP Committee task force on illegal activities) analysis here is restricted to the most relevant: alcohol and tobacco products.

101. Of all IEAs, smuggling illustrates most clearly how difficult it is to draw blackandwhite distinctions when it comes to producing exhaustive estimates for NA and including IEAs. Exhaustive estimates of imports, exports and consumption should already cover smuggled goods, e.g. textiles misdeclared to customs in order to avoid taxes and duties. The only reason to treat alcohol and tobacco differently is the volumes involved. Again, these may differ widely from country to country, as the degree to which existing estimation procedures already cover smuggled products.

102. 'Illegal domestic production' involves the brewing of strong alcoholic drinks or beer by households. This has to be covered in any case and is separate from smuggling. Therefore, we will not go further into ways to estimate illegal domestic production.

⁽⁷⁵⁾ Domestic output exported can be calculated by 'quantity produced for export x average export price'. Quantity produced for export is 'domestic output – quantity produced and consumed locally'.

Box 9: Smuggling — country types

From the country studies, EU/EFTA countries seem to fall into the following types as regards smuggling:

- type I: only illegal imports, no exports, no illegal domestic production, direct imports by households (travel expenditure);
- type II: illegal imports, no exports, no illegal domestic production, direct imports by households (travel expenditure), significant transit trade;
- type III: no significant illegal imports, some illegal production, some illegal exports, no relevant direct imports by households (travel expenditure);
- type IV: only illegal imports, no exports, some illegal domestic production, direct imports by households (travel expenditure);
- type V: illegal imports, no significant exports, some illegal domestic production, direct imports by households (travel expenditure), significant transit trade.

3.6.1. Data sources

103. Direct imports by households (personal travel expenditure) already have to be estimated for the BOP and tourism expenditure. The estimates are mostly based on questionnaires. This item may have to be taken into account in investigations into the smuggling of alcohol and tobacco products.

3.6.2. Basic model for smuggling of alcohol and tobacco

104. Contraband goods cross the border illegally, i.e. undeclared or declared wrongly. This always involves a change of ownership between non-residents and residents (see *ESA 2010*, paragraph 3.162). Up to the border, they are exports by the exporting country. However, exports of smuggled goods seem not to be relevant in most EU/EFTA countries (see country types above). The export/import price can be approximated on the basis of the wholesale price in the exporting country. The transit of contraband through a country is excluded from export/import figures.

Equation 18: export of smuggled goods (P.61) = quantity x price(fob); and

Equation 19: import of smuggled goods (P.71) = quantity x price(fob)

105. It is assumed that the smuggled goods are sold directly to resident households and to households only. This simplifying assumption excludes the possibility that some of the goods enter the legal distribution chain (retail sales or hotels and restaurants), but no country study indicated that this is particularly relevant⁽⁷⁶⁾.
106. Counterfeit alcohol and tobacco products are not identified separately, but they may be partly included in the estimated quantities for smuggled goods. No price difference is assumed between original and possible counterfeit products⁽⁷⁷⁾.
107. The sales value of smuggled goods is:

Equation 20: sales = quantity x price(sale) = HFCE (P.3 for S.14)

108. The average sales prices of smuggled alcohol or tobacco products need to be estimated; this can be done on the basis of expert estimates.

109. Domestic output (P.1) consists of the trade margin achieved for the smuggled goods:

Equation 21: trade margin (P.1) = sales – import of goods (P.71)

⁽⁷⁶⁾ See Chapter 5 (country practices) for additional information.

⁽⁷⁷⁾ Counterfeit goods and piracy are discussed in Chapter 4.

110. Smugglers' IC consists of transport and storage. The IC proportion needs to be estimated on the basis of expert estimates and information from similar activities, if not considered negligible.

$$\text{Equation 22: } GVA = \text{trade margin} - IC$$

3.6.3. How to classify smuggling of alcohol and tobacco

111. Smugglers are considered to be self-employed (resident units or notional resident units). GVA generated on domestic territory is therefore identical to mixed income (B.3g) for these units. Assuming that the producer unit is self-employed, all entries to be recorded between residents and non-residents in the NA fall within the boundary of GDP and there are no further transactions to be recorded in the transition from GDP to GNI. However, there is a need to investigate carefully whether any part(s) of these transactions are already recorded in the existing estimates.
112. For countries with illegal production of alcohol or tobacco products, the standard requirements apply (as for other hidden production). Estimates should be made of the GVA generated by this production, and possibly a trade margin. For countries with relevant exports of contraband, the relevant trade margin (up to the border) needs to be estimated. The trade margin element should be recorded in *NACE rev 2 category 47.99: 'other retail sale not in stores, stalls or market'* and *CPA 2008 product category 47.00.25: 'retail trade services of alcoholic beverages'* or *47.00.27: 'retail trade services of tobacco products'*.

3.7. Methodological improvements to the GNIC recommendations for including IEA statistics in balance of payments statistics

113. The main improvement to the GNI Committee (GNIC) recommendations on the inclusion of IEAs is a recommendation in the *BPM6*, paragraph 3.5 on identifying transactions between residents and non-residents, and the geographical breakdown⁽⁷⁸⁾ of imports and exports of these activities (see [Box 3: References to IEAs in the ESA 2010, the 2008 SNA, and the BPM6](#) for additional information about IEAs in *BPM6*). These two exercises are both prerequisites for compiling BOP statistics.
114. The following is a set of broad recommendations highlighting potential data sources for resident/non-resident identification and geographical breakdown. It is based on the GNIC recommendation identifying the three main IEAs (prostitution, the trafficking and production of illegal drugs, and the smuggling of alcohol and tobacco) and assumes that the institutional units involved in IEAs are self-employed; this reduces the BOP consideration to imports and exports of illegal goods and services.
115. An initial effort to implement the GNIC recommendations in BOP was a stock-taking exercise/survey launched in 2015 (see [Box 10: Survey on the treatment of IEAs in balance of payments statistics](#)).

Box 10: Survey on the treatment of IEAs in balance of payments statistics

At the end of January 2015, Eurostat launched a survey on the treatment of IEAs in BOP statistics in the 28 Member States, Norway, Switzerland, Iceland and Serbia. It was aimed at collecting metadata and

⁽⁷⁸⁾ i.e. collecting and producing data with breakdowns identifying the counterpart country in the transaction.

comprehensive information on national practices as regards the inclusion of IEAs in EU BOP statistics, following implementation of the *BPM6* and the *ESA 2010*.

Of the 25 Member States that contributed to the exercise, 16 (Czech Republic, Denmark, Germany, Estonia, Ireland, Spain, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Austria, Slovenia, Finland and the United Kingdom) include estimates of IEAs in their BOP, as do Iceland, Norway and Switzerland.*

The data series go back to 1990 (Finland), 1991 (Germany), 1993 (Spain), 1994 (Slovenia), 1995 (Italy and Iceland), 1997 (United Kingdom), to a reference period covering 2000–2009 (nine EU countries plus Norway and Switzerland) and (in the case of Cyprus) to 2013. Nine Member States plus Norway, Switzerland and Iceland produce estimates on a quarterly basis, three annually and four monthly.

For almost the entire BOP community, data are provided in the NA, so IEAs recorded in the BOP focus mainly on activities found to be significant in the framework of GDP/GNI measurement: prostitution, drug trafficking and production, and smuggling of alcohol and tobacco. In a number of cases, data (produced by NA compilers or based on supplementary data sources) on other kinds of illegal trade (especially smuggling of fuel) are taken into consideration.

* Bulgaria has included estimates of IEAs (exports and imports of drugs, prostitution and smuggled goods) in the BOP on a quarterly basis since March 2016. The data source is the National Statistical Institute (NSI) of Bulgaria and the data series are from 2010.

3.7.1. Prostitution

116. From a national perspective, four aspects of the import and export of prostitution services⁽⁷⁹⁾ have to be considered when estimating the resident/non-resident identification and the geographical breakdown:

- (1) non-resident prostitutes in the domestic economy (imports of services);
- (2) resident prostitutes operating abroad (export of services);
- (3) resident households purchasing prostitution services abroad (imports of services); and
- (4) non-resident households purchasing prostitution services in the domestic economy (export of services).

(1) and (2) relate to the NA 'supply approach' and (3) and (4) to the 'demand approach'.

117. The best sources of information for estimating non-resident prostitutes (imports of prostitution services) and resident prostitutes operating abroad (exports of services) are countryspecific studies that look at the composition of the migrant prostitute population and the destination country of resident prostitutes working abroad.⁽⁸⁰⁾ This information can be sourced from organisations that send information to the TAMPEP network. Alternatively, the *2009 TAMPEP Report*⁽⁸¹⁾ (Annex 4) provides information for 23 EU countries⁽⁸²⁾ on the composition of the sex industry in terms of nationals/migrants (%), on the origin of migrant sex workers (%), the nationality of sex workers reported in the home country⁽⁸³⁾ and the mobility of national sex workers (percentage of those who worked in another country and top 10 countries they worked in). While not perfect for the purposes of estimating a geographical breakdown, this information does provide percentages, countries of origin and destination countries which could form the basis of assumptions underpinning the breakdown.

118. On the other hand, if the coverage is considered inadequate, a breakdown could be estimated using the geographical breakdown of non-resident households' expenditure in the national economy (on the

⁽⁷⁹⁾ As indicated in footnote 22, human trafficking and forced prostitution are not estimated here; exchanges of currency in these circumstances are household to household current transfers, rather than transactions of 'goods'. Transfers of this kind between resident and non-resident households that are not included in BOP statistics should be estimated and adjustments made accordingly.

⁽⁸⁰⁾ See also information on data sources for prostitution services in paragraphs 67–68.

⁽⁸¹⁾ <http://tampep.eu/documents/TAMPEP%202009%20European%20Mapping%20Report.pdf>.

⁽⁸²⁾ Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and UK.

⁽⁸³⁾ The distinction between residents and non-residents in NA and BOP takes no account of nationality or country of origin, but this is a good proxy.

assumption that purchases of prostitution services are equally likely, no matter which country the tourist is from). Similarly, for resident households, prostitution services are most likely to be purchased in countries where they are legal. Again, it can be assumed that the distribution across these countries is even, although it could be argued that some countries are sextourism hotspots.

119. The EU statistical legislation on BOP, ITS and FDI reporting, Regulation (EC) No 184/2005⁽⁸⁴⁾ and Guideline ECB/2011/23⁽⁸⁵⁾ require each Member State to report goods accounts, including a general merchandise subcomponent, and services accounts broken down by geographical partners (geo4). As the accounts may contain explicit adjustments or estimates to reflect trade in illegal goods, they could be broken down by geographical counterparts. Nevertheless, special attention should be paid to the geographical allocation of IEAs.
120. Paragraphs 70–71 present a basic model for estimating the supply of prostitution services in NA that can be used, where possible, for BOP. Consistency between national accounts and balance of payments statistics is essential.
121. As both of these types of import and export of prostitution services are carried out by tourists, it is essential, before any estimates are made, to examine the coverage of tourism balance data and to consider whether this BOP item may already cover the purchase of prostitution services; i.e. is the estimate based on currency entering/leaving the national economy, withdrawal of currency in the domestic/foreign economy by tourists, etc.? If it is concluded that tourist expenditure is adequately covered, no further estimation is required and the geographical breakdown would be the same as for tourists' expenditure. Paragraph 71 presents a basic model for estimating demand for prostitution services in NA; it may be possible to use this for BOP.
122. The travel item in the BOP should contain reliable estimates of expenditure on illegal services, such as prostitution services, in line with the ROW in the NA.⁽⁸⁶⁾ Prostitution should be recorded as 'personal travel', which covers goods and services acquired by persons going abroad for purposes other than business, e.g. holidays, recreational and cultural activities, visiting friends and relatives, pilgrimages, and education- and health-related purposes.⁽⁸⁷⁾

3.7.2. Trafficking and production of illegal drugs

123. For estimating a geographical breakdown for the trafficking of illegal drugs, it is proposed that the best sources of information are countryspecific studies based on customs seizure data and shipments' country of origin. This information could be supplemented with information from Annex I to the *UNODC World Drug Report*⁽⁸⁸⁾, which covers global production of cannabis, coca bush and opium poppies by country, and could be used as an indicator of the likely source of cannabis, cocaine and heroin/opiate imports. See paragraphs 83–84 for additional information on data sources for illegal drugs.
124. For the purposes of this *Handbook*, trafficking refers to the import and sale of illegal drugs. For a basic model to estimate imports of illegal drugs, see paragraphs 89–90. The imported illegal drug, generally diluted, may be sold to residents or nonresidents. If sales to non-residents are relevant, the basic model should be adjusted accordingly.
125. An estimate of the production of illegal drugs exported can be obtained from domestic output exported (quantity produced for export x average export price). The quantity produced for export is 'domestic output – quantity produced and consumed locally'. For the geographical breakdown, see paragraph 123.

⁽⁸⁴⁾ Regulation (EC) No 184/2005 of the European Parliament and of the Council on Community statistics concerning balance of payments, international trade in services and foreign direct investment, as regards the update of data requirements and definitions (OJ L 35, 8.2.2005, p. 23).

⁽⁸⁵⁾ Guideline ECB/2011/23 of 9 December 2011 on the statistical reporting requirements of the ECB in the field of external statistics (recast) (OJ L 65, 3.3.2012, p. 1).

⁽⁸⁶⁾ Unlike BOP, the *2008 SNA* and the *ESA 2010* do not explicitly classify (personal and business) travel, but they do use the same concepts. The classification of services is mainly product-based, but it is transactor-based for travel, construction and government goods and services n. i. e. (see *BPM6*, paragraphs 10.61 and 10.88). Due to its transactor-based classification covering an assortment of goods and services, travel cannot be directly related to the Central Product Classification (CPC); <http://unstats.un.org/unsd/cr/registry/cpc-21.asp>.

⁽⁸⁷⁾ Paragraphs 77 and 78 discuss the possibility of an employer-employee relationship in prostitution services.

⁽⁸⁸⁾ http://www.unodc.org/documents/wdr2014/World_Drug_Report_2014_web.pdf.

126. IEAs involving illegal trade in illegal drugs for own use or to give away should be recorded as business or personal travel. If the illegal drugs are not for personal use, they should be classified as goods imports/exports.

3.7.3. Smuggling of alcohol and tobacco

127. For estimating a geographical breakdown for the smuggling of alcohol products, the first source to consider is information from national customs on the seizure of illicit alcohol products and their country of origin. This could be consistencychecked by looking at price differentials in the likely country of origin and assessing whether it would be profitable to smuggle alcohol products from that country.
128. For estimating a geographical breakdown for the smuggling of cigarettes, currently the most comprehensive sources of information for the illicit cigarette market in the EU are the recent KPMG Star⁽⁸⁹⁾ and Sun reports⁽⁹⁰⁾ (2012 and 2013 results respectively). These look at information from waste package surveys, market sales, and personal and telephone interviews. They cover both contraband and counterfeit cigarettes. The most pertinent information for a geographical breakdown is contained in the reports showing inflows and outflows of cigarettes by country. These give the main country of origin for contraband imports, average cigarette packet prices for countries of origin and the main destination country for exports. A geographical breakdown for all types of smuggled tobacco could be based on information from a country's customs seizure of illicit tobacco products and the country of origin of the transport shipping them.
129. IEAs involving the smuggling of alcohol and tobacco for own use or to give away should be recorded as business or personal travel. If the illegal transactions are not for personal use, they should be classified as goods imports/exports.

⁽⁸⁹⁾ http://www.pmi.com/eng/media_center/media_kit/pages/star_report_2012.aspx.

⁽⁹⁰⁾ http://www.pmi.com/eng/media_center/media_kit/pages/sun_report_2013.aspx.

4

Theoretical possibility for estimating other types of illegal economic activities

4.1. Introduction

130. *ESA 2010* paragraph 11.26 on the non-observed economy sets out that the value of production activities that are not directly observed are, in principle, included within the national accounts production boundary. The following three types of activity are therefore included:
- illegal activities where the parties are willing partners in an economic transaction;
 - hidden and underground activities where the transactions themselves are not against the law, but are unreported to avoid official scrutiny;
 - activities described as ‘informal’, typically where no records are kept.
131. The purpose of this Chapter 4 is to elaborate on the theoretical possibility for estimating other types of illegal economic activities – in the sense of *ESA 2010* paragraph 11.26 (a) in addition to those already included within national accounts. Chapter 4 does neither intend to come up with estimates for the whole non-observed economy nor the illegal economy.
132. These so called core illegal economic activities are included on the basis of common methodological guidelines, agreed between the European Commission and the Member States to ensure consistency in the way that all Member States measure core illegal economic activities for statistical purposes. These guidelines concern prostitution, the production and trafficking of drugs, and alcohol and tobacco smuggling. By 22 September 2014 all Member States were required to comply with these guidelines.
133. The starting point for Chapter 4 is previous work by Derek W. Blades⁽⁹¹⁾ and the *OECD Handbook on measuring the non-observed economy*⁽⁹²⁾. Chapter 4 of our *Handbook* is a purely theoretical elaboration on what can be achieved given the current understanding and availability of information. This analysis is not intend to coming up with an estimate of the size of the illegal economy (nor the shadow economy), but to complement where considered as applicable by national compilers the existing accounts.

4.2. Illicit firearms trafficking

4.2.1. Definition of illicit firearms trafficking

134. Article 3 (e) of the Firearms Protocol⁽⁹³⁾ defines Illicit firearms trafficking:

⁽⁹¹⁾ See Box 2 and Derek W. Blades: *Crime: What should be recorded in the national accounts; and what difference would it make?* in: Gaertner, Wulf/Wenig, Alois: *Proceedings of the International Conference on the Economics of the Shadow Economy*, Germany, Berlin, New York, Springer Verlag 1985.

⁽⁹²⁾ OECD et al.: *Measuring the non-observed economy: a handbook*, OECD Publishing, Paris 2002.

⁽⁹³⁾ Protocol against the Illicit Manufacturing of and Trafficking in Firearms, Their Parts and Components and Ammunition, supplementing the United Nations Convention against Transnational Organized Crime, New York, 31 May 2001. https://treaties.un.org/doc/source/recenttexts/18-12_c_e.pdf.

“Illicit trafficking” shall mean... the import, export, acquisition, sale, delivery, movement or transfer of firearms, their parts and components, and ammunition from or across the territory of one State Party to that of another State Party if any one of the States Parties concerned does not authorize it in accordance with the terms of this Protocol or if the firearms are not marked in accordance with article 8 of this Protocol’.

135. As a preventative measure to help minimize trafficking, the Firearms Protocol requires in Article 3 (d) that the manufacturing of firearms should be authorized by governments, making any unauthorized manufacturing illicit. The Protocol clearly defines illicit firearms trafficking – that is the international transfer of firearms without government authorization - as a criminal offence.⁽⁹⁴⁾ The criminalization of cross-border transfers of firearms that have not been authorized by governments is called for in Article 5.29 of the protocol. Also, under Article 10, States parties are required to establish or maintain ‘an effective system of export and import licensing or authorization, as well as of measures on international transit, for the transfer of firearms, their parts and components and ammunition’.
136. A question exists as to whether or not to include internal transfers of unregistered firearms as illicit trafficking. For completeness the internal transfers of unregistered firearms are included in the approach set out below.

4.2.2. Definition of firearms

137. A definition commonly used in official United Nations documentation and in other international settings is contained in the International Instrument to Enable States to Identify and Trace, in a Timely and Reliable Manner, Illicit Small Arms and Light Weapons (A/60/88), adopted by the United Nations General Assembly on 8 December 2005. In that document, ‘small arms and light weapons’ mean any man-portable lethal weapon that expels or launches, is designed to expel or launch, or may be readily converted to expel or launch a shot, bullet or projectile by the action of an explosive.

4.2.3. Definition of illegal firearms trafficker

138. An illegal firearms trafficker is a person who deals or trades in illegal firearms. Such traffickers are considered to be self-employed (resident units or notional resident units).

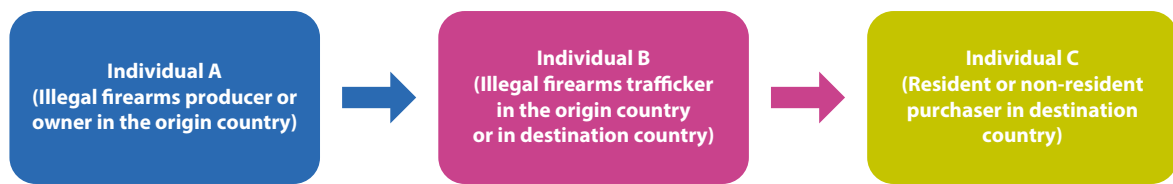
4.2.4. Characteristics of illicit firearms trafficking

139. Illicit firearms smuggling is a global phenomenon and demand/supply largely stems from those involved in drug trafficking, organised crime and violent crime. It is considered to be one of the lowest value transnational crimes but most highly profitable. The market can be internal or external and is estimated to be 10–20 % of the legal arms trade⁽⁹⁵⁾.
140. Chief sources are diversions of legal firearms and conflict-related stockpiles. Countries may be source, destination, or transit countries. Transportation methods are chiefly land, sea, air, and mail. Cross-border trafficking tends to mostly concern neighbouring or regional countries by land routes. Chief players can range from large scale sophisticated transnational illicit arms brokers to small scale transfers by individuals. Much of the illicit trafficking occurs on a small scale using unsophisticated methods (‘Ant Trade’).

⁽⁹⁴⁾ United Nations Office on Drugs and Crime Study on Firearms: *A study on the transnational nature of and routes and modus operandi used in trafficking in firearms*, Vienna, 2015; https://www.unodc.org/documents/firearms-protocol/UNODC_Study_on_Firearms_WEB.pdf.

⁽⁹⁵⁾ See Chapter III Transnational Crime and the Developing World, Channing May, March 2017; http://www.gfintegrity.org/wp-content/uploads/2017/03/Transnational_Crime-final.pdf.

Figure 3: Base model for illicit firearms trafficking



4.2.5. Definition of firearms in the statistical manuals

141. There is no reference to illicit firearms trafficking in the *2008 SNA* or *BPM6* manuals. However, it is recognised that illegal actions should be treated in the same way as legal actions (*2008 SNA* paragraph 3.96) having the characteristic of transactions such that there is mutual agreement between the parties involved.

4.2.6. Classification in national accounts

142. There are two key elements to be classified in firstly goods (illegal firearms exports and imports) and also services (as supplied by the illegal firearms trafficker).

Equation 23: Imports = Import quantity x average wholesale price (fob)

Equation 24: Exports = Export quantity x average wholesale price (fob)

143. Applicable *NACE rev 2* category is 47.99: *Other retail sale not in stores, stalls or markets.*

Equation 25: Household final consumption expenditure (HCFE) = Quantity of trafficked firearms x average street price

144. In the national accounts, the margin earned by the trafficker or entity involved in internal transfers of unregistered firearms is value added and thus a component of Gross Domestic Product (GDP).

Equation 26: Gross output = Trade margin = sales – imports

Equation 27: Gross value added = Trade margin – intermediate consumption

145. Intermediate consumption of traffickers consists of costs for transport and storage.

146. In the case of non-resident trafficker, gross value added will be transferred abroad and should be recorded as property income paid to the *rest of the world*.

147. Where there is domestic production of illegal firearms the following also holds:

Equation 28: Gross output = Quantity produced x average street price

Equation 29: Gross value added = Gross output – intermediate consumption

148. Applicable *NACE rev 2* category is 25.40: *Manufacture of weapons and ammunition.*

4.2.7. Classification in balance of payments statistics

149. Using seizures data an estimate of the volume of internationally smuggled firearms can be made. Placing an average purchasing value on these goods, an import (in the case of a destination country) can be recorded in the BOP trade in goods. Register and tracing data should assist in applying a geographical breakdown on these items. In the case of a source country where seizures are identified by authorities as destined for another country an entry should be recorded in the exports of the BOP trade in goods.

4.2.8. Data sources

150. With data on the demand side not readily available a vital indicator is the seizures data as a starting point to build up an impression of the supply side. Annual data on the number of firearm seizures from police and customs need to be treated carefully as these only represent a subset of all trafficked firearms and ammunitions so the perceived detection rate needs to be declared. Also, due to their nature annual seizure numbers may be volatile and as such a longer period should be analysed in attempting to identify the underlying trend. Where information on origin is traced by authorities through gun registers, the seizures can be split into those of domestic or international origin with individual countries identified.
151. Other data which may be available at national level include firearm diversions (thefts/losses), crimes committed with firearms, firearms registries and firearms legal production and trade.

Box 11: Data sources on illicit firearms trafficking

- **UNODC Study on Firearms 2015**

The UNODC (United Nations Office on Drugs and Crime) *Study on Firearms 2015*⁽⁹⁶⁾ provides collected data from a number of countries – including breaking down seizures into registered in own country, registered in another country, unregistered, unknown, country of manufacture, country of departure and country of destination. Also countries that engaged in co-operation and conducted tracing requests were identified. Further expansion of this analysis by UNODC to more member states in the future would be welcome and useful.

- **Small Arms Survey (NGO)**

This non-for-profit organization regularly produces analyses at both international and national level.⁽⁹⁷⁾

- **May, Channing: Transnational Crime and the Developing World, March 2017**

An analysis of transnational crime and the developing world by Global Financial Integrity. Chapter III. Trafficking of Small Arms and Light Weapons provides valuable insights into the value and dynamics of the illegal firearms trade and average costs of firearms globally. Table D. presents the average cost of an AK-47 around the world (USD).

- **Media**

Reports in the media from experts in the field have indicated sample purchasing prices for illicitly trafficked guns. An article based on interview with ATF agents (Bureau of Alcohol, Tobacco, Firearms and Explosives) in 2014 pointed to a black market price of double to triple retail price for a high quality pistols and USD 100–200 above retail for lower quality pistols in the dark net marketplace⁽⁹⁸⁾.

4.2.9. Double counting

152. Attention should be paid to the potential for overlap between estimates for trafficking of stolen illicit firearms and fencing and measures taken to ensure no double counting where indicated.

⁽⁹⁶⁾ United Nations Office on Drugs and Crime, *Study on Firearms: A study on the transnational nature of and routes and modus operandi used in trafficking in firearms*, Vienna, 2015;

https://www.unodc.org/documents/firearms-protocol/UNODC_Study_on_Firearms_WEB.pdf

⁽⁹⁷⁾ The Small Arms Survey 2015: Weapons and the World, Geneva 2015; <http://www.smallarmssurvey.org/publications/by-type/yearbook/small-arms-survey-2015.html>

⁽⁹⁸⁾ <https://www.forbes.com/sites/frankminiter/2014/08/12/inside-the-black-market-for-guns/#15a58732181e>

4.2.10. Recommendation on illicit firearms trafficking

153. Sales of illegal weapons should be recorded similar to the recording of (re-)sales of stolen goods, that is, recording the value added and trade margins of distribution activities. Adjustments to exports and imports of firearms might be necessary as well.

4.3. Fencing of stolen goods

4.3.1. Definition of fencing

154. *Fencing* (also *handling*) is the business of buying, selling or dealing in, stolen goods. Thus, fencing is the crime of buying and reselling stolen merchandise. The basis of fencing is the thief's desire to extract the maximum profit margin from their IEAs.
155. There are three criteria for an activity to be considered fencing:
- The property must have been stolen.
 - The property must have been received or concealed (though the fence may not have actually seen or touched it).
 - The fence must have accepted it in the knowledge that it was stolen.

4.3.2. Definition of fence

156. A *fence* is a person who receives or handles stolen goods. The role of the fence is to help the thief handle and sell stolen goods. Without someone to handle stolen property, thieves would have to rely on their own connections, significantly increasing their transaction costs. For society in general, the fence provides an opportunity for interested people to buy goods at less than the market price. They may share common business characteristics with legitimate businessmen. Usually, they have a legitimate 'front', to provide a cover for concealing their fencing trade, and practise 'product specialisation', since not all fences buy all types of stolen goods. They also depend on the market conditions for the stolen goods they trade in. The fence needs to have a good grasp of market practices, the risks run and the rules of economic competition.

4.3.3. Characteristics of fencing

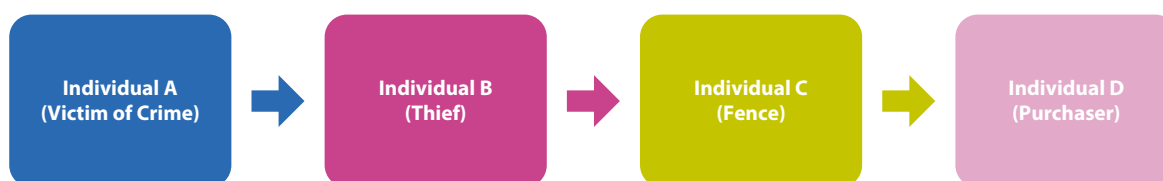
157. Stolen goods, in general, are likely to be quite elastic, in that a substantial increase in price will deter buyers who have to break the law, pay in cash and risk buying faulty goods. However, markets for stolen jewellery are influenced by world market prices and are much less sensitive to local demand and supply.
158. Pricing norms and prevailing market conditions are used to determine the 'fair' price to be paid to thieves for the stolen goods on each occasion. Public desire for high-value products at prices well below retail price can leave room for profit, and generates market demand that helps maintain fences' operations.
159. Research has shown⁽⁹⁹⁾ that the general rule of thumb 'two and three way split' holds in the fence market. That is, thieves selling to fences ask for between half the wholesale price and a third of the fences' selling price. Professional thieves who steal high-priced items are usually given the highest sums — about 40 % to 50 % of the wholesale price⁽¹⁰⁰⁾.

⁽⁹⁹⁾ Sutton, M., British Home Office Research Publications, *Handling stolen goods and theft: a market reduction approach*, 1998.

⁽¹⁰⁰⁾ Steffensmeier, Darrell J.: *Fencing Stolen Property*, in: *Encyclopedia of Police Science*, 3rd edition, Jack R. Greene, Routledge 2007, p. 518-522.

160. As stated, the interest in a specific type of good to be stolen and fenced depends on the normal wholesale–to–retail mark up of the good. Traditionally, electrical goods have a much smaller mark up than, for example, jewellery. However, estimates of the sale price must still allow the fence a good profit.
161. Additionally, demand for a specific good is observed to peak some 4 to 5 years after its launch on the market. Once white goods' market prices become affordable for people on low incomes, legitimate goods become more desirable than stolen ones. This observation mainly holds for high-tech (high-end) products such as smartphones, whereas demand for classic fenced goods such as gold and paintings is sustained over the years. It is particularly important to bear this observation in mind when trying to identify the type of goods prevailing in fencing activity for a specific period.

Figure 4: Base model for fencing



4.3.4. Definition of fencing in the statistical manuals

162. In the NA, as stated in Part I of this *Handbook*, a transaction is an economic flow that is an interaction between institutional units by mutual agreement. Theft is not recorded as an economic transaction, because it does not meet the condition of 'mutual agreement'. However, subsequent exchange of stolen goods, regardless of whether the new owner is aware of their provenance, is a transaction if the exchange is by mutual agreement.
163. The *ESA 2010*⁽¹⁰⁾ states that IEAs are considered transactions if all units involved enter into the transaction by mutual agreement. Thus, purchases, sales or barter of stolen property are transactions, while theft is not. (*ESA 2010*, paragraph 1.79).

4.3.5. Classification in national accounts

164. There are elements of the non-observed economy which do not fall within the production boundary (such as theft) and other elements, such as fencing, where both parties are willing participants (mutual agreement), which do fall within the production boundary. The latter activities need to be measured or estimated for their impact on the factors of value added, such as compensation of employees and operating surplus.
165. The purchase and subsequent sale of stolen goods involve action by units by mutual agreement. Although fencing is not addressed in any detail in *ESA 2010* or in *2008 SNA*, the activity of the fence falls within the production boundary and therefore needs to be considered for the sake of completeness in the NA.
166. In the NA, the margin earned by the fence is value added and thus a component of GDP. The inclusion of that margin, m , from a value added (income) perspective is consistent with an expenditure approach to GDP. For consumer goods (by way of example), the sale of goods by the thief (household) to the fence is intermediate consumption, $-c1$, and the onward purchase by the household sector from the fence is further consumption, $c2$:

$$\text{Equation 30: } -c1 + c2 = m$$

⁽¹⁰⁾ <http://ec.europa.eu/eurostat/documents/3859598/5925693/KS-02-13-269-EN.PDF/44cd9d01-bc64-40e5-bd40-d17df0c69334>

167. This illustrates how the entries should be recorded in the income approach (with the trade margin, m) and the expenditure approach (with the expenditure components $-c1$ and $c2$).

4.3.6. Classification in balance of payments statistics

168. The BOP is affected if the trade in stolen goods crosses the border with a change in ownership. To understand the effect of fencing on the BOP first, one has to observe that, given the high transaction costs, in order for goods to travel abroad resident and non-resident fences have to intervene. Hence, the standard procedure for BOP will be that thieves sell to resident fences in price A , then resident fences sell to non-resident fences at price $A+P1$ (i.e. with a premium, $P1$) and finally non-resident fences sell to final consumers at price $A+P1+P2$ (with the premium $P2$).
169. Given the pricing information provided above, price A should be close to 30 % to 40 % of the retail price. The premiums $P1$ and $P2$ need to be estimated from discussions with official authorities and individuals directly involved. From existing surveys, it has been observed that fences sell to domestic consumers at 50 % of the retail price.
170. In summary, there may be a need to estimate the purchase of fencing services from abroad and the sale of fencing services to abroad when including fencing in IEAs.

4.3.7. Data sources

171. As with all IEAs, developing data sources to assist in analysing and recording fencing can be difficult. As outlined in the case study below, Smeken and Verbruggen used administrative sources to compile their data. Police statistics, insurance claims, media reports and expert opinion can all give valuable insights into the world of fencing.
172. The fence's own expertise may also provide critical information on the practice. For example, Vincent Swaggi is a pseudonym created by Carl B. Klockars, an assistant professor of sociology, to hide the identity of a real life fence whom he studied at length and wrote about in *The professional fence*⁽¹⁰²⁾.

4.3.8. Dutch study

173. Marret Smekens and Marleen Verbruggen⁽¹⁰³⁾ show in a discussion paper how these concepts can be put into practice. They use administrative sources to estimate the total financial losses to companies (damage caused by crimes in which something is stolen and/or damaged (excluding theft of cars and including damage caused by burglary)); the total value of losses through break-ins; and total non-recovered stolen cars. For each of these categories of stolen goods, they estimate the proportion which is sold via fences/handlers.

Box 12: Type of theft and proportions sold by fences

| Type of theft | Proportions sold by fences |
|-------------------------------|----------------------------|
| Financial losses to companies | 80 % |
| Burglary | 66 % |
| Stolen cars | 100 % |

⁽¹⁰²⁾ Klockars, Carl B.: *The professional fence*, The Free Press, New York 1974.

⁽¹⁰³⁾ Smekens, Marret/Verbruggen, Marleen: *The illegal economy in the Netherlands*, Statistics Netherlands, Voorburg/Heerlen August 2005.

174. They further assume a 50 % margin for the fence in each of these categories. With these data and assumptions, the authors arrive at an estimate of EUR 190 million for the value added of handlers of stolen goods. This is 0.05 % of GDP. So fencing adds in this case EUR 190 million to value added in the national accounts. They estimate EUR 140 million of the value added is to be recorded in exports and EUR 50 million as consumption.

4.3.9. Recommendation on fencing or (re)sale of stolen goods

175. The sale of stolen goods (fencing) involves interaction between two units by mutual agreement. If the units are involved in these activities on a regular basis, value added and trade margin arise as part of the distribution of the illegal goods. The sale of stolen goods (fencing) should be recorded in the same way that sales of second-hand goods are recorded — that is, as the value added and trade margins of distribution activities.

4.4. Migrant smuggling

4.4.1. Definition of migrant smuggling

176. Article 3 subparagraph (a) of the *United Nations Protocol* ⁽¹⁰⁴⁾ *against the Smuggling of the Migrants by Land, Sea and Air, supplementing the United Nations Convention against transnational organized crime* defines the migrant smuggling as ‘the procurement, in order to obtain, directly or indirectly, a financial or other material benefit, of the illegal entry of a person into a State Party of which the person is not a national or a permanent resident’. It further defines illegal entry as ‘crossing borders without complying with the necessary requirements for legal entry into the receiving State’.
177. Council Directive 2002/90/EC of 28 November 2002 ⁽¹⁰⁵⁾ provides a common definition for assisting illegal immigration. It includes the following infringements:
- Assisting intentionally a non-EU national to enter or transit through an EU country, in breach of the law.
 - Assisting intentionally, and for financial gain, a non-EU national to reside in an EU country, in breach of the law.
 - Instigating, taking part in or attempting to commit the above acts.

4.4.2. Human trafficking vs migrant smuggling

178. It is important to distinguish human trafficking from migrant smuggling. According to Article 3 subparagraph (a) of the Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women And Children, trafficking in persons is ‘the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs.’ The Article goes on to state that the consent of a victim of trafficking in persons to these forms of intended exploitation are irrelevant where any of the means described in subparagraph (a) have been used ⁽¹⁰⁶⁾.

⁽¹⁰⁴⁾ https://www.unodc.org/documents/southeastasiaandpacific/2011/04/som-indonesia/convention_smug_eng.pdf.

⁽¹⁰⁵⁾ <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32002L0090&from=EN>.

⁽¹⁰⁶⁾ <http://www.ohchr.org/EN/ProfessionalInterest/Pages/ProtocolTraffickingInPersons.aspx>.

179. For statistical purposes, and in line with the UN protocols, it is essential to highlight the main difference between these two activities. Migrant smuggling is an activity into which the parties involved enter by mutual agreement (i.e. with the consent of the persons being smuggled). By contrast, human trafficking is an activity against an individual with no mutual agreement. In other words, migrant smuggling is a transaction where illegal migrants are not forced to move and it is a resident-non-resident transaction. If the migrant is forced to move it is classified as human trafficking, not as an illegal economic activity. Box 13 presents the main differences between human trafficking and migrant smuggling.

Box 13: Comparison of human trafficking and migrant smuggling

| Criteria | Migrant smuggling | Human trafficking |
|-----------------------------------|-------------------|-------------------|
| Consent | Required | Irrelevant |
| Exploitation | Not required | Required |
| Transnationality ⁽¹⁰⁷⁾ | Required | Not required |
| Non-residency | Required | Not required |

Source: UNODC ⁽¹⁰⁸⁾

180. Migrant smuggling and human trafficking are also differentiated by precise legal and methodological distinctions. The crime of migrant smuggling violates laws on national and international borders. By contrast, human trafficking is a crime against people because it violates their fundamental human rights. Even though both offences involve the transportation of humans, migrant smuggling always requires the illegal crossing of national borders, while human trafficking might occur within the same country. Furthermore, the migrants' consent to be transported and their ties with the smugglers generally end once the migrants have reached their destination. A victim of human trafficking might have consented to their transportation to a new destination. However, this initial consent becomes legally irrelevant when the trafficker starts using threats, coercion, deception or fraud to exploit the victim ⁽¹⁰⁹⁾.
181. In some cases, migrants continue depending on smugglers after they have arrived in the destination country. Smugglers and organised criminal groups may continue providing their illegal services, through which migrants stay in a country without the right papers or change their migration status. Irregular migrants are also more vulnerable to labour and other forms of exploitation ⁽¹¹⁰⁾. These should be classified as trafficking and not included in smuggling estimates. Many migrants are forced to take illegal work to pay for smuggling services ⁽¹¹¹⁾. This may lead to an increase in illegal activities other than illegal labour in the economy. Where coercion or abuse is involved, the activities need to be classified as trafficking.
182. Paragraph 1.79 of the *ESA 2010* explains that only economic activities in which both parties are willing participants — i.e. when the transaction between two participants is consensual — should count. National compilers should ensure that GDP estimates are consistent with this definition. Directive 2011/36/EU ⁽¹¹²⁾ addresses human trafficking, and in Article 2 gives a list of punishable intentional acts of exploitation and makes it clear that a victim's consent to such exploitation, whether intended or actual, is irrelevant. Moreover, Article 83 of the Treaty on the Functioning of the European Union ⁽¹¹³⁾ empowers the EU to tackle the sexual exploitation of women and children and human trafficking. This gives the EU a mandate to address prostitution where it involves sexual exploitation and human trafficking.

⁽¹⁰⁷⁾ Transnationality; According to Article 3(2) of the TOC Convention, a serious crime is transnational if:

- a. It is committed in more than one State
- b. It is committed in one State but a substantial part of its preparation, planning, direction or control takes place in another State
- c. It is committed in one State but involves an organized criminal group that engages in criminal activities in more than one State; or
- d. It is committed in one State but has substantial effects in another State.

⁽¹⁰⁸⁾ <https://www.unodc.org/lpo-brazil/en/trafico-de-pessoas/index.html>.

⁽¹⁰⁹⁾ https://www.unodc.org/documents/human-trafficking/Migrant-Smuggling/Smuggling_of_Migrants_A_Global_Review.pdf.

⁽¹¹⁰⁾ https://ec.europa.eu/home-affairs/what-we-do/policies/irregular-migration-return-policy_en.

⁽¹¹¹⁾ For more information, see <https://www.europol.europa.eu/crime-areas-and-trends/crime-areas/facilitation-of-illegal-immigration>.

⁽¹¹²⁾ Directive 2011/36/EU of the European Parliament and of the Council of 5 April 2011 on preventing and combating trafficking in human beings and protecting its victims (OJ L 101, 15.4.2011, p 1).

⁽¹¹³⁾ http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_2016.202.01.0001.01.ENG&toc=OJ:C:2016:202:TOC#C_2016202EN.01004701.

183. Article 18 of Directive 2011/36/EU states that Member States should consider measures to make it an offence to use services in the knowledge that the person concerned is a victim of human trafficking. Economic activities without consent could then be removed from the estimates, in case human trafficking is identified.

4.4.3. Definition of migrant smugglers

184. Migrant smugglers are generally organised in networks and stretched along the migratory routes. Organisational structures range from loose networks linking local organisations to pyramidal cross-country criminal organisations⁽¹¹⁴⁾. Recruiters tend to be of the same nationality as migrants. Other members of the network carrying out the tasks described in Box 14 may be both EU and non-EU nationals. Smugglers who are non-EU nationals may be active inside the EU, may have often acquired the nationality of the transit or destination country, or may have residence permits in the transit or destination country. Outside the EU, smugglers typically support the movement of migrants from the same ethnic background⁽¹¹⁵⁾.

Box 14: Description of types of facilitators in the smuggling network

- **Coordinators** are in charge of the networks and take overall responsibility for operations, notably in full package offers. They are well-connected and can communicate with different types of facilitators in origin, transit and destination countries.
- **Recruiters** advertise smuggling services and establish contacts with potential migrants.
- **Transporters and guides** execute the operational part of the smuggling. They are in charge of in country transportation and illegal border crossing. Guides are generally local people, operating over relatively short distances.
- **Service providers and suppliers** provide services such as accommodation and food, vehicles or boats, forged or falsified documents.
- **Spotters** are specifically in charge of directing smugglers to the best routes and informing them of possible border patrol checks.
- **Cashiers** are responsible for handing over the migrants' money to the smuggler on successful completion of the operation.
- **Chairmen** are migrants who have settled in critical locations and are recognised by their own community. They have developed local contacts and may corrupt local officials.

Source: OECD⁽¹¹⁶⁾

- **Network leaders** coordinate the activities of the smaller networks along the whole route.
- **Local leaders** manage activities on a specific leg of the route through their personal network of contacts.
- **Document providers** are in contact with specialised criminals to obtain counterfeit documents on behalf of migrants.
- **Brokers** get in touch with migrants via social media — or in public spaces such as travel offices, key arrival places and asylum centres — to arrange the travel and documents.
- **Low-level facilitators** are opportunistic individuals who act as drivers, boat crew, guides or translators on a temporary basis.
- **Corrupt officials** provide occasional support to networks by allowing them to evade law enforcement attention or obtain official documents in exchange for a fee.
- **Money handlers** are trusted people who collect and transfer money from migrants or drivers.
- **Legal businesses** such as hotels, car rentals and travel agencies are used to support activities and launder criminal proceeds.

Source: Europol⁽¹¹⁷⁾

⁽¹¹⁴⁾ <https://www.europol.europa.eu/publications-documents/migrant-smuggling-in-eu>.

⁽¹¹⁵⁾ https://www.europol.europa.eu/content/page/strategic_analysis_reports.

⁽¹¹⁶⁾ <https://www.oecd.org/migration/Can%20we%20put%20an%20end%20to%20human%20smuggling.pdf>.

⁽¹¹⁷⁾ <https://www.europol.europa.eu/publications-documents/migrant-smuggling-in-eu>.

185. Corruption is also a key factor in migrant smuggling. Corrupt officials or document providers are commonplace in the networks and there are many opportunities for bribery to facilitate smuggling.

Box 15: Opportunities for bribery/corruption in migrant smuggling ⁽¹¹⁸⁾

- To gain exit from refugee camps, bribes are often offered to guards and security personnel.
- Corruption in issuing falsified or fraudulent identity or travel documents may involve paying bribes. Bribes may be required to use such documents.
- Bribes may be required to purchase passports and visas through corrupt officials in embassies.
- Bribes may be required to create fictitious companies for visa smuggling.
- Bribes may be required to get approved destination status for a number of people to enter on one legitimate visa.
- Bribes may be offered to customs officials, immigration officers or border police at border crossings in transit and destination countries, even where falsified documentation is used.
- Bribes may be offered to transportation officials who stop vehicles to inspect their cargo or at checkpoints.
- Bribery or coercion may be used to induce or intimidate law enforcement officials or members of the judiciary, so that they do not open investigations, bring prosecutions or convict smugglers.
- Immigration officials may be bribed to fail to implement a deportation order.
- Officials may also be bribed to help find illegal housing and jobs for immigrants on arrival.

4.4.4. Characteristics of migrant smuggling

186. Smugglers use many different techniques, depending on geography, border controls and enforcement measures. Two techniques for gaining illegal entry are preferred. The first involves illegal border crossings by land, sea or air; in many cases migrants may be hidden in closed compartments in cars, trucks, buses, trains or containers. A second technique involves migrants trying to enter with fraudulent documents, such as forged, counterfeit or stolen passports, ID cards and visas. This type of smuggling has often included corruption in obtaining the documents or in using them.
187. Different forms of smuggling services are available. The most common are the 'pay-as-you-go' model and the 'full package' model. The 'pay-as-you-go' model is the most popular in many parts of the world. Here, the final destination might not be predetermined and the speed and direction of the journey will depend on the funds that migrants have available at each step. With the 'full package model', the smugglers operate like a travel agency: migrants pay the fee in their country of origin to a smuggler, who arranges several services to have the migrant transported to the destination country.
188. Migrant smugglers tend to be familiar with migratory routes. The routes are flexible and influenced by external factors like border controls and weather conditions. Europol ⁽¹¹⁹⁾ says that over 230 smuggling hotspots have been identified in and outside the EU; more may emerge as external factors change.
189. Smugglers use land, sea and air routes, and often abuse legal migration and travel routes. Moving people from the entry point into the EU to the EU country of final destination is a smuggler's core business. Overland travel is the most popular means, according to Europol. Parts of a journey may sometimes be done on foot. However, this is limited to short walks across green borders between countries. In most cases, land transfers take place by car, bus, lorry or train. In western and northern Europe, migrants often travel on public transport such as buses and trains with fraudulent documents ⁽¹²⁰⁾.
190. Smuggling by air is used less frequently, but may become more attractive in the future as checks along land and sea routes increase. Air travel may sometimes be the only means used by smugglers; in most cases,

⁽¹¹⁸⁾ <https://www.oecd.org/corruption/Corruption-and-the-smuggling-of-refugees.pdf>.

⁽¹¹⁹⁾ Europol: *Europol Public Information, Migrant smuggling in the EU*, February 2016.

⁽¹²⁰⁾ <https://ec.europa.eu/home-affairs/what-we-do/policies/irregular-migration-return-policy/facilitation>.

however, it is commonly just one of the means of transport, which may also include transport by land or sea. Migrant smuggling by air tends to entail the provision of fraudulent documents⁽¹²¹⁾.

Figure 5: Base model for migrant smuggling



191. Recruiters tend to be of the same nationality as migrants and collect the initial fees for transportation. The value added of illegally assisting migrants is the gross value or turnover for providing this assistance minus the costs incurred — in transporting migrants to the border, for example. At this stage, there are no exports and imports.
192. According to police reports and interviews with smugglers, transporters/guides assisting the illegal transfer of migrants across a national border are mainly resident in the transit country/target country. Their value added equals the turnover (export of services) minus the costs for facilitating the cross-border transfer.

4.4.5. Migrant smuggling prices

193. Smuggling prices are highly dependent on the route and type of services offered by smugglers. They also tend to vary according to the season — depending on how dangerous and long the route is. They may even be affected by increased demand on smuggling services when civil unrest, political uncertainty or conflicts arise in addition to poverty and lack of economic opportunities.
194. Entry visas and illegal transportation to several European countries are offered on social media, with large variations in prices, depending on the destination country, the route and the services offered (such as taking fingerprints). Prices range from EUR 5 000 to EUR 15 000⁽¹²²⁾.

4.4.6. Definition of migrant smuggling in the statistical manuals

195. Paragraph 6.44 of the 2008 SNA states that: 'Examples of activities that may be illegal but productive in an economic sense include the manufacture and distribution of narcotics, illegal transportation in the form of smuggling of goods and of people, and services such as prostitution'. Derek Blades identifies people smuggling as a general type of illegal production⁽¹²³⁾.

4.4.7. Classification in national accounts and balance of payments statistics

196. Migrant smuggling includes activities involving illegal entry that are therefore against the law in a given country and fulfil the definition of illegal economic activities in the 2008 SNA (paragraph 6.43). Mutual agreement between smuggled migrants and smugglers is also required to classify the act as an illegal economic activity. Migrant smuggling is one of the fastest growing transnational criminal activities and is

⁽¹²¹⁾ Europol: *Europol Public Information, Migrant smuggling in the EU*, February 2016.

⁽¹²²⁾ Information on smuggling prices from research on social media, provided by the UNHCR Bureau for Europe, Brussels.

⁽¹²³⁾ Blades, Derek W.: *Crime: What should be included in the national accounts and what difference would it make*, in: Gaertner, Wulf/Wenig, Alois (eds.): *The Economics of the Shadow Economy. Proceedings of the International Conference on the Economics of the Shadow Economy, Held at the University of Bielefeld, West Germany, October 10–14, 1983*, New York, Springer, 1985, p. 45-58.

a very lucrative form of organised crime⁽¹²⁴⁾. Compilers have to put in a great deal of effort to include this IEA in the statistics and make them exhaustive, as the *2008 SNA* and the *BPM6* recommend.

197. Estimation methods in the national accounts and BOP need to be based on how the country is affected by smuggling activity and by having smuggled migrants and smugglers resident on its soil. National accounts compilers will require information on resident smugglers and their activities in the country to calculate the extent of operations in their country. BOP compilers will include resident/non-resident transactions and data with a geographical breakdown. Estimates need to take into account how much of migrants' payments to smugglers can be linked to transit countries and destination countries.
198. Smuggled migrants are by definition always non-resident. For estimation purposes, it is assumed that smuggling starts with the resident recruiter (smuggler) recruiting the migrants to be smuggled into the transit and destination countries and with a transaction between resident institutional units. The transport that complicit transporters/guides provide in transit and destination countries can be classified as the export of illegal 'transport services'.

Box 16: How does the residency of migrant smugglers and migrants affect the calculations?

- Gross output: total value paid to smugglers
- Intermediate consumption: incurred by smugglers to facilitate smuggling
- Gross value added: illegal transportation services
- **Type I: Resident smugglers and resident migrants** (does not cover transnationality and illegal entry)
 - Illegal production of services in the same economy
 - Gross value added = Gross output – intermediate consumption
- **Type II: Resident smugglers and non-resident migrants**
 - Estimations recorded as export of illegal services
 - Export of transportation services = number of migrants smuggled by resident smugglers * prices
 - Costs related to other transit countries should be excluded from estimations
- **Type III: Non-resident smugglers and resident migrants**
 - Estimations recorded as import of illegal services
 - Import of illegal transportation services = number of residents smuggled by non-resident smugglers * prices
 - Costs related to other transit countries should be excluded from estimations
- **Type IV: Non-resident smugglers and non-resident migrants**
 - No estimations recorded

199. Smuggling services and prices may be organised centrally by one individual, but the network tends to include a range of other intermediaries as well, such as forgers, airline staff and officials. According to Koser⁽¹²⁵⁾, smugglers generally retain about half of the payment, with the other half going to intermediaries to obtain passports and/or visas, to airline ground staff to issue boarding passes, or to other immigration officials. This information is crucial and can be used in calculating the intermediate costs.

4.4.8. Double counting

200. Migrants may make payments at different moments: in advance in the country of origin; after transportation to the destination country; or partly in advance and partly after transportation. Adjustments to the estimations should be made for all payments along the transportation route in transit countries and for other services, to avoid overestimation.

⁽¹²⁴⁾ Migration Policy Institute: *Human Smuggling and Trafficking into Europe: A Comparative Perspective*, February 2014, citing the *2007 UN Drug Report* (UNODC, 2007).

⁽¹²⁵⁾ Koser, Khalid: *International Migration: A Very Short Introduction*, Oxford University Press, USA, 2016.

201. Bribery is also commonly used to obtain fraudulent documents for migrant smuggling and should be excluded from the calculation of the transportation margin. The recording of bribery is discussed in a separate chapter. Estimates may include some adjustments — based, for example, on the margins that might be found in the transportation sector. Prices paid may also include, in part, bribes and payments for accommodation, rental cars, etc.; these should be excluded from the calculation.
202. Legal businesses are often caught up in migrant smuggling. For instance, transportation companies may allow undocumented migrants as passengers on cargo ships, container ships or airlines. Private travel agencies may also issue cash purchase airline tickets without verifying the purchaser's identity⁽¹²⁶⁾. These kinds of activities may already be compiled in business statistics as legal activities and corrections will have to be made for smuggling estimates to avoid double counting. Legal businesses such as hotels, car rental firms and travel agencies in the country are also often used for smuggling purposes and adjustments for such costs should be made to the estimations.

4.4.9. Classification in national accounts

203. The calculations model for gross output may be as shown below. It applies to resident migrants (individuals) in the country of origin who are to be smuggled and resident smugglers:

*Equation 31: Gross output P.1 (turnover) = Payments from smuggled migrants to the smuggler for being transported to a transit/destination country (transportation fee) * number of migrants smuggled*

204. The smugglers are considered self-employed (resident or non-resident institutional units or notional resident units). Gross value added B.1g generated on domestic soil is, therefore, identical to the mixed income/gross operating surplus for these units.
205. Calculation of the total gross value added may be as shown below. It applies only to countries with resident migrants (individuals) who are to be smuggled and resident smugglers:

Equation 32: Gross value added B.1g (margin) = Gross output – intermediate consumption incurred by the smuggler

4.4.10. Classification in balance of payments statistics

206. After they leave their country of origin, smuggled migrants are generally transported through several transit countries before they reach the destination country. Compilers need to identify the fees/costs so that they can allocate them to other countries, establish the relevant transportation margins for the country of origin and determine the export/import of illegal transport services, depending on the country's involvement in the illegal transportation operation. The estimates should cover transactions between residents (smuggled migrants/smugglers) and non-residents (smuggled migrant/smugglers) only.

4.4.11. Data sources

207. Information on numbers of smuggled people is often incomplete and too scarce to reflect accurately the situation in any given country. However, some informative figures may be available from national authorities, offering different levels of information detail — especially the information on numbers of smuggled people and prices for smuggling services that is required to estimate the impact of the illegal activity. Information on the resident migrant smugglers in the country is also crucial in estimating the amount of the exported illegal activity. Statistics on smuggled migrants may also suffer from a number of limitations; one example would be the delay between when they arrive and when the relevant authorities actually register them.

⁽¹²⁶⁾ <https://www.oecd.org/corruption/Corruption-and-the-smuggling-of-refugees.pdf>.

Box 17: Data sources

- Interior ministries (migration agencies and immigration authorities)
- Border control authorities
- National Police
- Europol⁽¹²⁷⁾
- Interpol⁽¹²⁸⁾
- The International Organization for Migration (IOM)⁽¹²⁹⁾ provides information on Europe's Displacement Tracking Matrix, which tracks and monitors displacement/migration flows. Data from 15 countries in the Mediterranean and beyond is consolidated, updated and analysed into a comprehensive package of the highest standard of reporting on migration. The IOM seeks to provide an overview of migrants, including refugees, arrivals, relocations, stranded migrants, fatalities and missing people, accommodation sites and policy developments. It also has information from surveys conducted with migrants at 83 flow monitoring points in eight European countries.
- The UN Refugee agency⁽¹³⁰⁾ provides data, reports and other information that is essential for field operations. It also carries statistical reports on people of concern, refugees, asylum seekers, returned refugees, internally displaced people and stateless people. Detailed information is available on refugees' country of asylum, place of origin, gender, age, location and legal status.
- The European Migrant Smuggling Centre was formed in February 2016 in response to the unprecedented increase in the number of irregular migrants arriving in the EU since 2014. The Centre seeks to support EU Member States in targeting and dismantling the complex and sophisticated criminal networks involved in migrant smuggling⁽¹³¹⁾.
- The Agency for the Management of Operational Cooperation at the External Borders, commonly known as FRONTEX⁽¹³²⁾, collects data. Its risk analysis network draws up reports with a regular overview of irregular migration at the EU external borders, based on the irregular migration data exchanged among Member State border control authorities within the network.

208. Estimates of migrant smuggling could be based on statistics provided by the interior ministry or other authorities with the information, based on extrapolations of the number of foreigners discovered illegally crossing national borders and estimates of the prices these individuals paid for transportation through the country. Migrant smuggling is a transport activity and the transportation output is measured by the value of the amounts receivable for transporting persons. Estimations will be different for the origin, transit and destination countries, depending on where the migrants and smugglers are resident.
209. Migrant smuggling is a highly profitable business and turnover was about USD 5–6 billion in 2015, according to a recent Europol-Interpol report. The main means of payment (in just over half of cases) is cash. Other means include alternative banking systems (20 %) and funding from family members in the EU (16 %)⁽¹³³⁾.
210. Organised crime groups and money laundering activities in the country may be closely involved in smuggling activities; compilers need to take this into account to avoid double counting.

4.4.12. Recommendation on migrant smuggling

211. Migrant smuggling involves providing illegal transportation services. The gross valued added amounts to the total value of smuggling fees received by smugglers minus their intermediate consumption during migrant smuggling activities.

⁽¹²⁷⁾ <https://www.europol.europa.eu/>.

⁽¹²⁸⁾ <https://www.interpol.int/>.

⁽¹²⁹⁾ <http://migration.iom.int/europe/>.

⁽¹³⁰⁾ <http://www.unhcr.org/figures-at-a-glance.html>.

⁽¹³¹⁾ <https://www.europol.europa.eu/about-europol/european-migrant-smuggling-centre-emsc>.

⁽¹³²⁾ <http://frontex.europa.eu/>.

⁽¹³³⁾ Joint Europol-Interpol report, *Migrant smuggling networks*, 2016.

4.5. Infringement of intellectual property rights: counterfeit goods and piracy

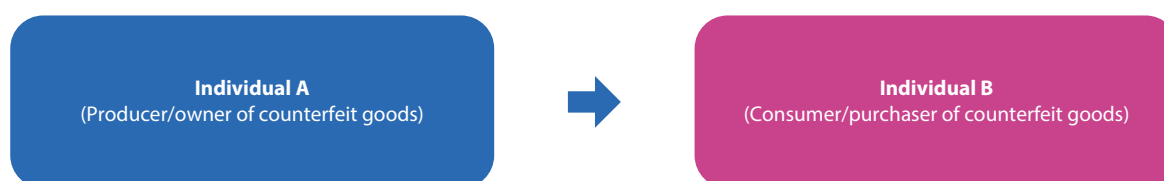
4.5.1. Definition of counterfeiting and piracy

212. Counterfeiting and piracy are used to describe a range of illicit activities, normally relating to trademarks and patents (for counterfeit goods) and copyright (for piracy). Together, these constitute intellectual property offences.
213. Intellectual property offences are defined within the International Classification of Crime for Statistical Purposes (ICCS) ⁽¹³⁴⁾ as the ‘unlawful copying, using, reproducing or other infringements of copyrights, patents, trademarks or other intellectual property’ (Section 0503). ‘Creating, manufacturing, selling, passing or possessing counterfeit trademarked, patented, licensed, or otherwise protected products or an instrument to create a false imitation of a product’ are classified separately under counterfeit product offences (Section 0702-2).
214. Much of the work on quantitative estimates of intellectual property offences to date has been concerned with the ‘economic impact’ of counterfeiting and piracy. Although in practice this may be very similar to the quantity of economic activities, caution should be exercised when using one as a proxy for the other. Particular care should be taken with regard to economic activity based on digitally distributed copyright-infringing material, where estimates are more rudimentary.

4.5.2. Characteristics of counterfeiting and piracy

215. Counterfeit and pirated goods describe tangible goods that infringe trademarks, design rights, patents or copyrights. These goods are produced through the usual production processes. The markets in which counterfeit products operate consist of demanders for these products, and suppliers. Demanders may be consumers (individuals), but may also be firms in cases where a given counterfeit or pirated product is an intermediary component in the production process. Demanders may be unaware that they are purchasing counterfeit goods when they have requested genuine, non-IP infringing goods, having been deceived by the sellers. But it could be also the case that counterfeit and pirated products have been requested and purchased knowingly (see OECD, *The Economic Impact of Counterfeiting and Piracy*, OECD Publishing, Paris 2008).

Figure 6: Base model for counterfeit goods and piracy



4.5.3. Definition of counterfeiting and piracy in the statistical manuals

216. There was no mention of counterfeiting or piracy in either *2008 SNA* or *BPM6*. In the *OECD Handbook on measuring the non-observed economy* ⁽¹³⁵⁾, the OECD remarked that ‘From a conceptual point of view, recording illegal production within the national accounts framework does not pose special problems if the

⁽¹³⁴⁾ <https://www.unodc.org/unodc/en/data-and-analysis/statistics/iccs.html>.

⁽¹³⁵⁾ OECD et al. (2002), *Measuring the non-observed Economy: a handbook*, OECD Publishing, Paris 2002.

production process resembles the production process for legal activities. This is the case for the production and distribution of illegal goods, services and counterfeit products, for productive activities carried out by unauthorised producers, and for smuggling.’

217. Nevertheless, the clandestine nature of the activities means that data are less readily available — not only from market participants who want to keep such information hidden, but also from enforcement authorities, where such operational data may be confidential.
218. The two most relevant publications, widely referenced within the policy field, are the OECD’s 2008 publication on *The Economic Impact of Counterfeiting and Piracy*; and the revised edition published by the OECD together with the EU Intellectual Property Office (EUIPO) in 2016, entitled *Trade in Counterfeit and Pirated Goods: Mapping the Economic Impact*.
219. The estimates of economic impact in these publications are largely based on international trade in counterfeit and pirated goods. Users of the data should note that the methodology represents an upper limit of counterfeit trade (see more in the section on data sources below).

4.5.4. Classification in national accounts and balance of payments statistics

220. Most counterfeiting and piracy activities should be captured in official estimates. Analysis of the markets implies that actors can largely be placed in one of two groups:
 - Legal enterprises — paying taxes and producing pirated and/or counterfeit products. Although there is a civil legal issue about the infringement of intellectual property rights, data about the scale of the economic activities should already be captured in the *2008 SNA*. Disaggregating the data for such enterprises from the totals within the respective economic sectors may be somewhat harder.
 - Illegal enterprises — not registered, not paying taxes and producing pirated and/or counterfeit products. Where executed on a commercial scale, a large proportion of this activity will be from organised crime groups, with a subsequent need to engage in money laundering, tax evasion, etc.
221. These activities should be captured in estimates of the non-observed economy, but in particular where organised crime groups are participating in a number of different markets (poly-criminal activity), they may be difficult to identify separately.
222. As specified below, the production of counterfeit goods is already captured either in the estimates of the production of enterprises, or in the estimates of underground production, if it is undeclared. Therefore, no specific classification of these transactions is needed, as they are in principle already included in the production account.
223. If a cross-border change of ownership of counterfeit goods takes place, the transaction should be recorded in BOP under the goods and services account. However, as explained above, either this transaction is already recorded because officially declared, or is captured by the estimates for smuggled goods if undeclared. Therefore, no specific classification of these transactions is needed.

4.5.5. Data sources

224. Valuable data sources for estimating counterfeit trade are enforcement statistics, consumer surveys, sampling (for example, test purchases or inspections of warehouses), company data, and data on counterfeit production facilities.

4.5.6. Methodologies for estimating the economic impact

225. The methodology in the OECD-EUIPO study uses three econometric components:
- General Trade-Related Index of Counterfeiting (GTRIC) for products: an index of industry sectors according to their relative propensity to contain counterfeit products.
 - GTRIC for economies: an index of economies according to their relative propensity to be an economy of provenance for counterfeit products.
 - A general matrix that assigns the relative likelihood of containing counterfeit products to each pair: 'product category' and 'provenance economy'.
226. GTRIC assigns to each product from a given provenance economy a probability of it being counterfeit, relative to the most intensive combination of product-provenance economy. In theory, the value of counterfeit trade for each combination of product and provenance economy can be calculated to give an overall total. However, there are two main obstacles to doing this at a global level: the imprecise nature of measuring a clandestine and highly dynamic activity; and the fact that operational customs data are often confidential.
227. While there are good statistics available from the European Commission (DG TAXUD) on customs seizures of counterfeit goods in the EU customs area, work to gather the corresponding data for internal seizures is still ongoing. No data are available for digitally distributed pirated content. Therefore, the estimate using these figures does not include domestically produced and consumed counterfeit and digital products. Nor does it include pirated digital products distributed via the internet.
228. Further details can be found in *Trade in Counterfeit and Pirated Goods: Mapping the Economic Impact*.

4.5.7. Recommendation on counterfeit goods and piracy

229. Not all illegal copies of counterfeit goods and piracy contribute to the national income. Only those that are sold for money do. The treatment is similar to fencing.
230. The 'value' of copies for people's own use, for friends, or for exchanges through the internet that are not paid for, does not contribute to national income. The treatment is similar to theft.
231. The core idea underlying the methodological framework is this: by establishing the propensity, with different types of infringing goods are imported from different provenance economies on the GTRIC for products and economies, these propensities can be applied to statistics on international trade in products to estimate both the relative intensities and the overall magnitude of counterfeiting of products.

4.6. Bribery

4.6.1. Definition of bribery

232. Bribery can be defined as the act of taking or receiving something with the intention of influencing the recipient in some way that is favourable to the party providing the bribe. As such, bribery is typically considered illegal.
233. The ICCS and the United Nations Convention Against Corruption⁽¹³⁶⁾ refer to bribery as corruption that occurs when promising, offering, giving, soliciting, or accepting an undue advantage to or from a public

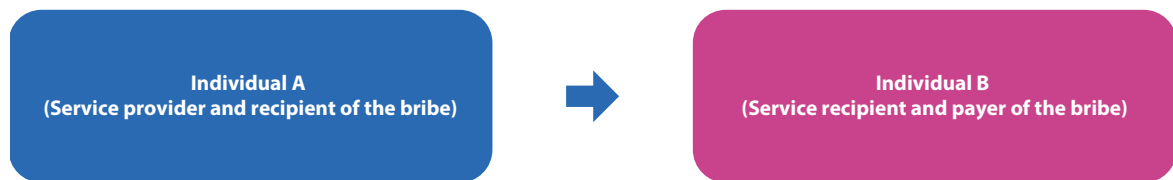
⁽¹³⁶⁾ http://www.unodc.org/documents/treaties/UNCAC/Publications/Convention/08-50026_E.pdf.

official or a person who directs or works in a private sector entity, directly or indirectly, such that the person acts or refrains from acting in the exercise of his or her official duties.

4.6.2. Characteristics of bribery

234. Other kinds of corruption identified by the ICCS are embezzlement, abuse of functions and trading of influence. Whereas the first two do not qualify as transaction, and hence fall beyond the scope of this *Handbook*, trading of influence differs from bribery in the ICCS definition by the fact that the bribed person has abused his or her real or supposed influence, rather than acting (or refraining from acting).
235. Given the subtle difference between the two behaviours, for the purposes of national accounts and balance of payments statistics, they can be assimilated. This choice may, however, pose problems of measurability; when this is the case it is suggested to keep the two separate. ICCS further discriminates between *active bribery* — which happens when someone offers (promises, or gives) an undue advantage and acts (or refrain from acting) — and *passive bribery*, which is solicitation (or acceptance) by the official. As long as the exchange takes place, from NA purposes this distinction is not significant.

Figure 7: Base model for bribery



236. The process of bribery is very straightforward: on the one hand there is the payer of the bribe, who seeks an undue advantage; on the other hand there is the recipient of the bribe, who guarantees this advantage to the payer.

4.6.3. Definition of bribery in statistical manuals

237. It is in general assumed that individuals enter into bribery freely; otherwise, the offence is no longer bribery, but becomes extortion. Extortion does not deal in mutual consent. Therefore, it is suggested that bribery be recorded as a transaction, although the *2008 SNA* does not provide full guidance on this issue. While bribery may be disputable from a more moralistic point of view, in economic practice it is part of the price actually paid and mutually agreed for the goods or service provided.

4.6.4. Classification of bribery in national accounts and balance of payments statistics

238. As regards classifying this transaction in national accounts and balance of payments statistics, the recommendation in principle is to follow the guidelines in the *OECD Handbook on measuring the non-observed economy* (paragraphs 9.20-9.24), for market and non-market production alike. However, for practical reasons, it would be advisable to loosen the conceptual framework and not to distinguish or treat separately payments that are linked to non-market services and are not allowed or not publicly accepted or expected; these payments, both market and non-market, should then be recorded as an income transfer. The same holds true for payments to people in privileged positions to obtain a contract (see paragraph 9.24 of the *OECD Handbook on measuring the non-observed economy*).
239. In the case of market production, the proposed classification should therefore be similar to tipping. The amount of the bribe paid to a person (usually an employee) is to be considered as a higher purchaser's price, increased output and higher value added. The same amount will be shown as increased compensation

of employees. If the person receiving the bribe is a self-employed/unincorporated enterprise or an incorporated enterprise, it will be recorded as mixed income or gross operating surplus. Assuming the bribe is to be spent for consumption purposes, the amount will show up as household final consumption expenditure.

240. If the unit paying the bribe is a household, it will be recorded as higher household final consumption (equivalent to a higher purchaser's price). If the unit paying the bribe is an enterprise, it will be recorded as higher intermediate consumption and will, accordingly, lower this unit's value added.
241. In the case of non-market production, the amount of the bribe paid to a public servant or a government employee should be recorded as higher compensation of employees. Following the sum of costs approach, this will increase the non-market output of government and therefore, also, the gross value added by the same amount. On the expenditure side, government final consumption expenditure will remain the same because the amount of sales for a service is not included and the use of the bribe will be recorded in household final consumption expenditure (assuming the employee spends the money for consumption purposes).
242. On the counterpart we will see the same recording again. If the unit paying the bribe is a household, it will be recorded as higher household final consumption; if the unit paying the bribe is an enterprise, it will be recorded as higher intermediate consumption.
243. Some may criticise the increased value of government output (and compensation of employees) due to bribery. On the other hand, it can be argued that the higher value shows, for example, the 'actual' value of, or the 'true' government spending on, health or education in a country. In addition, bribery reduces the overall performance of the (criminal justice) system. The protection of individuals and their property requires effective and honest courts and police forces. Laws authorising these services establish the conditions determining individual entitlements and obligations to comply with regulations. Having to pay bribes for these services violates the rule of law. Although the sums involved may be petty, they stimulate public distrust in government and reduce the quality of governance.
244. If the transaction underlying the bribery offence is cross-border — that is, if one of the parties involved is non-resident in the reporting economy — it should be recorded in BOP. In agreement with the treatment suggested for national accounts, the transaction should be classified in the primary income account as compensation of employees.
245. As usual in balance of payments statistics, care is needed to guarantee that the offsetting payment is correctly recorded in the financial account, so as to avoid a potential rise in errors and omissions.

4.6.5. Data sources

246. Over the past two decades, several attempts have been made to conduct quantitative assessments of corruption. Researchers and statisticians have explored ways to generate hard data to inform public debates and policy developments on corruption. Such attempts, however, have faced several methodological and operational challenges. Corruption, and namely bribery, is a crime; collecting accurate data on it is as challenging as gathering evidence on other forms of crime. Illicit behaviours are hidden and victims are not always willing or able to report them to the relevant authorities. In comparison with other offences, victims of corruption are less likely to report it for reasons such as fear of retaliation, reluctance to fight an established practice or because they are to some extent jointly responsible for the crime.
247. Despite all these complications, researchers in academia, NGOs, national statistical offices and international organisations have made a considerable number of attempts to measure corruption, using different methodological methods which can be broadly divided into two groups:
 - *indirect methods*, such as expert assessment and composite indicators; and
 - *evidence-based methods*, such as analysis based on administrative data and public surveys.

248. These methodologies, together with their advantages and drawbacks, are briefly reviewed and discussed below.

4.6.6. Indirect methods

249. Indirect methods have been used a great deal in assessing corruption, at both the national and international levels. They are based on indirect experiences of corruption or on evidence-based corruption-related phenomena.
250. They include, on the one hand, expert assessments: under this method, a selected group of experts is asked to provide an assessment of corruption trends and patterns in a given country or group of countries. The basic idea is to collect summary information from a select set of individuals who, supposedly, are familiar with the information sought.
251. On the other hand, they include composite indicators: these involve combining a variety of statistical data into a single indicator. This method is often used to quantify in a succinct manner multi-dimensional concepts or to assemble data generated from diverse sources.
252. These methods have the advantage of being relatively flexible and requiring a rather limited amount of resources and data, but present significant weaknesses as regards their validity and the relevance of their indicators and assessments.
253. The validity of expert assessments in particular is limited by the fact that they are typically based on opinions or perceptions, not on data. Even if derived from expert opinions, the same information can be interpreted in different ways by different people, depending on their culture, values, socioeconomic status, occupation, level of expertise and other variables. The interplay between subjective elements can have a great influence on the final assessment of the level of corruption.
254. Composite indicators often allow for rankings across countries, but involve several choices around methodology, such as the selection of sub-indicators and the methods for aggregation and weighting, which depend on researchers' subjective judgments⁽¹³⁷⁾. The result is an arbitrary scale that does not provide any direct measure of specific corruption phenomena occurring in the country. In other words, composite indicators have limited application when the aim is to measure the extent of corruption in terms of, for example, monetary flows generated by this crime, the number of corruption episodes or the proportion of people involved.
255. Therefore, these methods seem better suited to a qualitative assessment of the phenomenon (e.g. ranking countries) rather than quantitative estimates of its economic impact. However, they could be used as possible input for a more specific methodology, which would need to be supported by other data sources.

4.6.7. Evidence-based methods

256. Contrary to opinion-based methods, evidence-based methods to assess corruption require information on the evidence or experience of the phenomenon under study, which must then be analysed using scientific, non-subjective procedures. Statistical tools are used to ensure that the information collected is as accurate and objective as possible.
257. Two main ways of collecting statistical, experience-based information on corruption are:
- Collecting **administrative data**, i.e. official data on reported cases of corruption from a variety of sources, such as the police, prosecutors, courts and anti-corruption agencies. Official data on reported crime may be a first step towards assessing corruption, and the availability of detailed data on offences

⁽¹³⁷⁾ <http://www.oecd.org/std/leading-indicators/42495745.pdf>.

committed and officials involved may provide some interesting insights on specific areas of vulnerability to corruption. However, given the usually low reporting rates, these data describe more the response of law enforcement and criminal justice systems rather than reporting on the true extent of the crime itself. Moreover, differences and changes in anti-corruption legislation may undermine comparability, both across countries and over time.

- Conducting **sample surveys** on corruption and integrity. Random sample surveys allow for the direct collection of data on experience using representative samples of a given population — households or businesses, for instance. However, they can be difficult to carry out, as they probe an issue that society tends to regard as unacceptable. To improve the response rate, the strategy usually adopted in such surveys is to ask respondents whether they have been victims of corruption. Various survey typologies can be developed. Each targets different groups with different roles and experiences of corruption:
 - surveys on individuals or households;
 - surveys on the private sector at large or specific industries; and
 - surveys on civil servants or specific sectors (i.e. the police, the judiciary).

258. Sample surveys collect information on direct experiences of corruption. If conducted according to strict methodological standards (proper sample design and size, random selection of respondents, safe and professional conduct of interviewers), sample surveys may produce important indicators on the extent and prevalence of corrupt practices. They may shed light on the forms that corruption can take, and on the more vulnerable sectors and procedures. They may also help overcome 'dark figures' issues posed by administrative data, as anonymous surveys are implemented to facilitate the disclosure of accurate and complete information by respondents. Sample surveys, however, have weaknesses too.
259. When using data from sample surveys on corruption and integrity, for example, limitations emerge in the following areas:
- Not all corruption offences generate individual victims. In cases of embezzlement, abuse of function or illicit enrichment, to name a few, it is often not possible to identify direct victims; therefore, these crimes cannot be investigated through a sample survey.
 - In corruption offences, the concept of 'victim' may have blurred connotations. In many instances, the underlying agreement between the bribe-giver and the bribe-taker makes respondents reluctant to provide truthful responses. This particularly applies, for instance, in cases of so-called 'grand corruption', where both parties have gained sizeable benefits from their dealings.
260. One common issue in surveys addressing sensitive behaviour is that respondents feel more comfortable in providing socially acceptable answers. As corruption is a socially stigmatised practice, respondents may under-report it, even in an anonymous survey. The opposite risk also exists: some respondents may over-report it to draw attention to it and to influence action.
261. Even with these limitations, sample surveys on bribery represent the most solid source of information, as suggested by an increasing number of experiences, both at national and international level. For example, the UNODC has implemented a number of corruption surveys in partnership with national authorities in recent years⁽¹³⁸⁾. The World Bank conducts a regular programme of business sector surveys, with an extended module on corruption to capture the experience of bribery affecting the business sector. A number of surveys are conducted also by NGOs and within academic initiatives (such as Transparency International's 'Corruption Barometer' programme). More recently, corruption surveys have entered the realm of official statistics, with some national statistical offices having successfully undertaken large-scale surveys on corruption (Mexico and Italy, for example).
262. Furthermore, the inclusion of two indicators on bribery in the statistical framework to monitor the 2030 Sustainable Development Agenda will probably trigger an improvement in data availability in this area. (They are indicator 16.5.1 — Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months; and indicator 16.5.2 — Proportion of businesses that had at least one contact with a public official and that paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months.)

⁽¹³⁸⁾ For a complete list see: <http://www.unodc.org/unodc/en/data-and-analysis/corruption.html>.

263. Sample surveys on corruption are particularly useful for estimating the amount paid through bribes in a given period in a given country. In particular, they may provide the following information:
- number of people (or businesses) that paid at least one bribe in the last 12 months;
 - number of times these people paid a bribe;
 - the amount (of cash or valuables) paid for the last bribe.
264. The collection of additional data on the type of public official/civil servant, the type of administrative procedure/process and the specific reasons of the bribe may provide further information on bribery and its economic assessment for inclusion in national accounts.

4.6.8. Recommendation on bribery

265. In the case of market production, the treatment is similar to tipping. The amount of the bribe paid to a person (usually an employee) is to be considered as a higher purchaser's price, increased output and higher value added. The same amount will be shown as increased compensation of employees. If the person receiving the bribe is a self-employed/unincorporated enterprise or an incorporated enterprise, it will be recorded as mixed income or gross operating surplus. Assuming the money is to be spent for consumption purposes, the amount will show up as household final consumption expenditure.
266. On the counterpart, if the unit paying the bribe is a household, it will be recorded as higher household final consumption (equivalent to a higher purchaser's price). If the unit paying the bribe is an enterprise, it will be recorded as higher intermediate consumption and will, accordingly, lower this unit's value added.
267. In the case of non-market production, the amount of the bribe paid to a public servant or a government employee should be recorded as a higher compensation of employees. Following the sum of costs approach, this will increase the non-market output of government and therefore, also, the gross value added by the same amount. On the expenditure side, government final consumption expenditure will remain the same because the amount of sales for a service is not included and the use of the bribe will be recorded in household final consumption expenditure (assuming the employee spends the money for consumption purposes). On the counterpart we will see the same recording again. If the unit paying the bribe is a household, it will be recorded as higher household final consumption; if the unit paying the bribe is an enterprise, it will be recorded as higher intermediate consumption.

4.7. Illegal gambling

4.7.1. Definition of illegal gambling

268. Illegal gambling can be defined as 'gambling in which operators do not comply with the national law of the country where the services are offered, provided those national laws are in compliance with EU treaty principles'⁽¹³⁹⁾. The key aspect of gambling itself is providing entertainment to gamblers by allowing them the chance for making gains in wealth⁽¹⁴⁰⁾.

⁽¹³⁹⁾ Council of the European Union: Legal framework for gambling and betting in the Member States of the European Union, Spanish Presidency Progress Report, Brussels, 2010. <http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%209495%202020INIT>.

⁽¹⁴⁰⁾ Eurostat, *Handbook on price and volume measures in national accounts*, Luxembourg 2016.

4.7.2. Characteristics of illegal gambling

269. Illegal gambling exists alongside its legal counterpart. The latter consists generally of lotteries (some linked to charity), slot machines, casino games and sport betting, situated in a regulated environment with strict licences and permits. Often, a government agency will be in charge of issuing licences, supervising businesses involved in gambling, and preventing illegal gambling and gambling addiction. Such agencies can probably provide useful information on illegal gambling.
270. Illegal gambling seems to involve mainly the following types of games:
- illegal casinos;
 - e-games;
 - live poker;
 - illegal lotto / Toto / sports betting machines;
 - commercial bingo.
271. The scale and form of illegal gambling will vary between countries depending, for example, on the legal options available. For example, if live poker is not forbidden, there will probably be no illegal live poker.

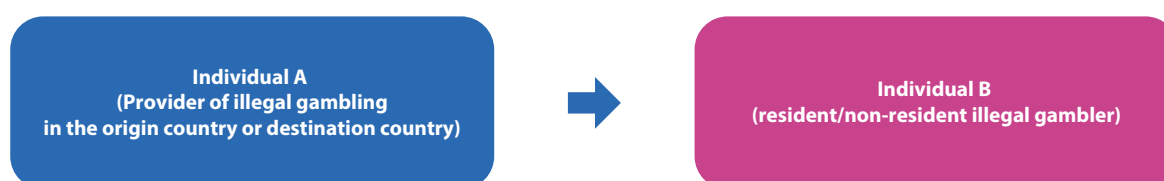
4.7.3. Definition of illegal gambling in statistical manuals

272. Transactions in national accounts and balance of payments for illegal gambling are similar to those for legal gambling, where 'The amounts paid for lottery tickets or placed in bets consists of two elements: the payment of a service charge to the unit organising the lottery or gambling and a residual current transfer that is paid out to the winners' (ESA 2010, paragraph 4.135).

4.7.4. Classification in the national accounts

273. This relationship between the organiser of illegal gambling and the illegal gambler is shown in Figure 8: Base model for illegal gambling.

Figure 8: Base model for illegal gambling



274. Depending on the available source data illegal gambling can be described / estimated both from a production and/or an expenditure point of view.

4.7.5. Production

275. The output of businesses active in gambling is the gambling-related services provided. It is determined as follows:

$$\text{Equation 33: } \text{service charge} = \text{payments for lottery tickets and bets} \text{ minus } \text{payments to the winners}$$

276. The available data for illegal gambling are mostly on total 'turnover' i.e. payments for lottery tickets and bets. An assumption needs to be made about the proportion paid to the winners.

277. As illegal gambling consists mostly of small-scale activities, intermediate consumption will be relatively low, consisting of rented space, printed material (tickets), etc. Intermediate consumption of online activities of course includes IT services and internet services.
278. Value added is the remainder of output and intermediate consumption, and it may reasonably be assumed to consist only of mixed income, as most organisers are own-account workers.

4.7.6. Expenditure

279. The final use of illegal gambling can only be household consumption or export. It is conceivable that the counterpart to export could be imports of illegal gambling services.
280. It may be assumed that only resident households take part in illegal gambling that requires physical attendance. Tourists and people on business trips abroad would be more likely to visit legal gambling enterprises. This leaves only e-gaming as illegal gambling for export and import.

4.7.7. Classification in balance of payments statistics

281. Illegal gambling is recorded in the NA as one of several transactions. In the supply and use tables, the supply table should record production and imports, and the use table should record household consumption and exports. These entries appear in the institutional sector accounts under *Goods and services*. Production, intermediate consumption and specifically exports and imports of (gambling) services appear in the *rest of the world* (ROW) account of the NA and the BOP.
282. Current transfers representing the balance of payments for lottery tickets and bets / payments to winners (gross transfers) are recorded as current transfers from households to households, to and from the ROW.
283. Payment for bets and to winners in e-gaming is unlikely to be made as 'normal' transactions via banks (think of bitcoins), so the counterparts of such transactions will not be included in the financial accounts. This may lead to errors and omissions in the BOP unless explicit adjustments are made.

4.7.8. Data sources

284. The government agency in charge of issuing licences, supervising businesses involved in gambling, and preventing illegal gambling and gambling addiction (see paragraph number 268) may be a valuable source of information. In addition, specialist research by universities or research institutes and police reports can provide information useful for estimating illegal gambling. The country case study for the Netherlands, below, gives examples of specific research, with references.

4.7.9. Country case

285. In the Netherlands, tax must be paid on winnings. The tax rate is 29 % of total winnings. In 2015, the government received EUR 238 million in gambling taxes (according to Ministry of Finance tax data). The gaming authority, the *Kansspelautoriteit* (KSA) is an independent administrative body that regulates games of chance by issuing gambling licences, supervising licensees, combating illegal gambling and protecting consumers from gambling addiction.
286. In a 2009 survey of the nature and size of illegal gambling (Homburg & Oranje, 2009), illegal gambling was estimated for five types of games:

- illegal casinos;
- e-games;
- live poker;
- illegal lotto / Toto / sports betting machines;
- commercial bingo.

287. This survey provides the best source for illegal gambling activities in the Netherlands. Commissioned by the Ministry of Justice, it consisted of 17 000 online and 3 999 telephone interviews. It offers various insights into the population group that participates in illegal gambling; players' personal traits; and average wins and losses.

4.7.10. Illegal casinos

288. Illegal casinos existed in the Netherlands until the beginning of this millennium. In 2002, a report put the number of gamblers in illegal casinos at 350 000 and total turnover at EUR 140 million (Oostdijk et al., 2002). Respondents were asked to name the casinos they had visited that year: if it was not Holland Casino, it must have been illegal (only five per cent of respondents were aware that only Holland Casino was legal and that the rest were illegal). This allowed the number of illegal gamblers and their average bets to be estimated. Many illegal casinos were closed down in the next few years with increased enforcement. Homburg and Oranje (2009) argue that all illegal casinos have now been closed and that with the 'Joker project', active enforcement has ensured that this form of illegal gambling has disappeared. It is not unreasonable to assume that this form of gambling is disappearing from other EU countries as well, as there are more lucrative ways to provide illegal gambling, such as sports betting machines and e-games.

4.7.11. E-games

289. E-gaming is playing interactive games of chance via the internet. This can take the form of digital casinos, sports betting, slot machines or, for example, poker. E-gaming is illegal in the Netherlands and many other EU countries, although not all. Ordering lottery tickets or playing a lottery in the Netherlands via the internet counts as e-commerce; it is different from e-gaming and is allowed. Spending on e-gaming has increased strongly in recent years (*Nationaal Kenniscentrum Kansspelen*) and the online market has expanded considerably. In 2015, the European market was the largest market for online gambling: of the EUR 34.6 billion gross win worldwide from online gaming, the EU market accounted for more than 47.6 % (H2 Gambling Capital, 2016). The European online gambling sector accounted for 17.5 % of the total European gambling market in 2015. The size of the Dutch online market in 2015 was said to be EUR 300 million (H2 Gambling Capital, 2016), but this estimate seems to be on the low side. Dutch people spend an average of EUR 26 a year on e-games, but Denmark is assumed to be very similar to the Netherlands in terms of gambling and the Danes spend almost EUR 100 per year on average. Professor Kees Cools, an expert on the online gambling market, explained why H2's estimate is on the low side: 'The numbers from H2 Gambling Capital are from the suppliers of online gambling activities (situated in countries where this is legal). They want to avoid a high tax rate and it is in their interest to underestimate the market.'

290. Motivaction, a research group commissioned by Holland Casino, estimated the Dutch online gambling market to be worth at least EUR 500 million a year in 2015. By their estimate, almost 1.5 million people are gambling online. These numbers are based on the consumer spending of more than 20 000 residents (research not yet available to the public). We assume that half of the stakes is paid out again, so gross receipts are also 50 % of the stakes brought in. This 50 % is determined using data on stakes and entry fees for internet games from Homburg and Oranje (2009). So that would put the gross gaming receipts of online gambling at EUR 250 million in 2015.

4.7.12. Live poker

291. Live Poker (not via the internet) is illegal if it is not played in Holland Casinos or in the domestic sphere. Together with the increased popularity of poker via the internet, there is an upswing in live poker tournaments. According to Homburg and Oranje (2009), gross gaming receipts came to EUR 4.7 million in 2008, based on average wagers and estimated numbers of players. Linear extrapolation is used to calculate the years 2009-2015.

4.7.13. Lotto/toto and sports betting machines

292. Lotto or Toto is illegal if it is not organised by the Nederlandse Loterij or is not played in the domestic sphere (with a maximum of 50 participants). According to Homburg and Oranje (2009), gross gaming receipts are EUR 11.8 million in 2008. Furthermore all sports betting machines ('gokzuilen') are illegal. Illegal operators mainly place online sports betting machines in bars and coffee and teahouses frequented by customers of Turkish descent (Spapens & Bruinsma, 2015). The betting products on offer are comparable to those of online gambling operators such as Betfair and Bwin. However, the bets and payouts are made in cash instead of via online payment methods.
293. On average, 202 sports betting machines are found per year (CBS and Kansspelautoriteit). The average turnover per machine is EUR 182 000 per year. That means that gross gaming receipts were EUR 36.7 million in 2015 (Spapens & Bruinsma, 2015).

4.7.14. Commercial bingo

294. Bingo is not illegal if organised by an association with a clear purpose which is not organising gambling activities. Prizes may not exceed a certain limit. All other forms of organised bingo are illegal. Illegal bingo is mostly played in community centres and sports centres. Most of the players are women, in the 35-65 age group, with low levels of education. According to Homburg and Oranje (2009), gross gaming receipts were EUR 4.5 million in 2008. Linear extrapolation is used to calculate the years 2009-2015.
295. For each activity, the value added (VA) is calculated as domestic production (P) minus costs (U). Production equals consumption (C) plus exports (E) minus imports (M). Imports and exports are only relevant for e-games. The amounts Dutch residents spent on illegal bingo, lotto etc. abroad are assumed to be negligible. The same applies to non-residents playing these games in the Netherlands.

Equation 34: $VA = P - U = C - M + E - U$

4.7.15. Illegal gambling data

296. Most people who play gambling games lose all or part of their bets. Consistent with the definitions in the national accounts, these net losses (bets minus payouts) are considered as the consumption of gambling games (Kazemier et al., 2012). From Homburg and Oranje (2009), some characteristics of the people playing these games are known. Therefore 2010-2015 can be estimated using linear extrapolation.
297. For the lotto/Toto, the time series of men and women in the age group 35-65 years old, with secondary education or less, are used. For bingo, the population of women in the age group 35-65 years old, with secondary education or less, is used. For live poker and e-games, the trend of the population of men in the age group 15-35 with higher education is used.

Equation 35: output is calculated as consumption minus imports.

298. Intermediate use is calculated for all types of games. For illegal casinos and live poker, it is assumed intermediate use is 50 % of the turnover. This is based on data from Donker et al. (2001). For the intermediate use of lotto/Toto and bingo and e-games, assumptions are made.
299. According to the national police services agency KLPD (2003) 45 % of providers of e-games are Dutch. This means that 55 % of the entry fees for e-gaming should be accounted for as imports of illegal gambling services. This percentage is used for all years.
300. A study by the research bureau Motivaction found that Dutch online gamblers value safety and reliability most, and therefore mostly visit big foreign gambling websites such as Unibet and PokerStars.
301. The same rationale as above can hold for exports as well, but it is assumed that non-residents do not consume e-games provided by Dutch providers. The reason for this is that no Dutch e-gaming services are well-known abroad. Instead, the industry is dominated by large players, situated in countries where online gambling is legal, some of which are in the EU. Exports of e-games are therefore considered zero. Other countries may have considerable exports of online gambling, but these are usually countries where online gambling is legal, so estimates can be made using taxation data.

4.7.16. Illegal gambling in the future

302. As stated previously, both offering and promoting online gambling is forbidden in the Netherlands, but it is often tolerated. The state suffers, as it is deprived of millions of euros it should obtain from taxes on gambling. So Parliament adopted the 'Remote Gambling Act' ('Kansspelen op Afstand') in July 2016. The government wants to issue permits to online gambling providers at the end of 2017. This allows the government to set requirements for providers. The licensees must help players to keep their gambling under control. Licensees must also exclude problem gamblers. The gaming authority must check that suppliers comply with these conditions.
303. The government's objective is that within three years 80 % of gross profit of the online gambling market will be in the hands of legal providers. Forecasts by H2 Gambling Capital show that this objective is both realistic and ambitious. Upon legalisation by 2017, the forecast is that channelling of over 76 % will be achieved in 2020. The target of channelling 80 % has been achieved in most European countries after five years (H2 Gambling Capital, 2016). Obviously this will affect estimates of illegal gambling in the future.

4.7.17. Recommendation on illegal gambling

304. The value of consumption of illegal gambling equals the turnover of illegal casinos, illegal live poker, illegal lotto, illegal bingo, illegal e-gaming and sport betting machines. Output is defined as consumption minus imports (100 %-share/percentage of resident providers from e-games divided by total providers of e-games). The valued added generated by providers of illegal gambling equals output minus intermediate consumption

4.8. Provision of money laundering services

4.8.1. Definition of money laundering

305. Criminals who profit from illegal economic activities (IEAs) need to legalise their illegal profits. Money laundering channels this dirty money through the financial system (domestic or foreign) and normal businesses to make it legal, or clean, and so prevent it from being traced to its criminal sources. In many

countries, money laundering has been made a criminal offence in its own right, in addition to the crime that produced the money in question. Paragraph 9.26 of the *OECD Handbook on measuring the non-observed economy* says:

‘Money laundering is here defined as the transfer of money through different bank accounts so that its original source is concealed from the taxation authorities or other regulatory services. There is mutual agreement, at least implicitly, that the transactions should be registered in the system of national accounts. In so far as there is a difference between the value of the illegal cash and the value of the legalised cash, this should be looked upon as a provision of services’.

306. That OECD recommendation assumes that an illegal service is being provided that is not captured elsewhere in the accounting framework as output.
307. ‘Provision of money laundering services’ (PMLS) therefore implies a commission/fee that should be applied to *P.1 Output* of the various IEAs recorded in the national accounts. The percentage of money to be laundered varies according to the underlying crime. Experienced investigators from Europol⁽¹⁴¹⁾ and the US Department for Homeland Security⁽¹⁴²⁾ refer to a *service fee/commission of 10 % for money laundering services*. In other jurisdictions, different estimates may be applied. It is important that the data sources and methods used by national accounts have the same degree of reliability.
308. There is no universal definition of money laundering as an activity.⁽¹⁴³⁾ More information may be found in Professor Unger’s report for the Dutch Ministry of Finance⁽¹⁴⁴⁾ and in the Annex to this *Handbook*.⁽¹⁴⁵⁾

Box 18: Definition of money laundering for the purpose of this Handbook

For the purposes of this *Handbook*, money laundering is defined as a process transferring illegally obtained money or investment from illegal economic activities — those identified by the GNI Committee (i.e. production and trafficking of drugs, prostitution, and smuggling of alcohol and tobacco, based on transactions mutually agreed between consenting parties) and those discussed in Part II — through an outside party to conceal their true source, and make them (appear) legal. The difference between the value of the illegal money and the legalised money should be understood as the value of the provision of money laundering services (PMLS).

4.8.2. Characteristics of money laundering

309. Money laundering can be divided into three stages:⁽¹⁴⁶⁾

⁽¹⁴¹⁾ Second Meeting of the Eurostat Task Force on IEA, Luxembourg, 23 March 2016; for empirical evidence, see <http://www.bbc.com/news/world-asia-india-38011407>.

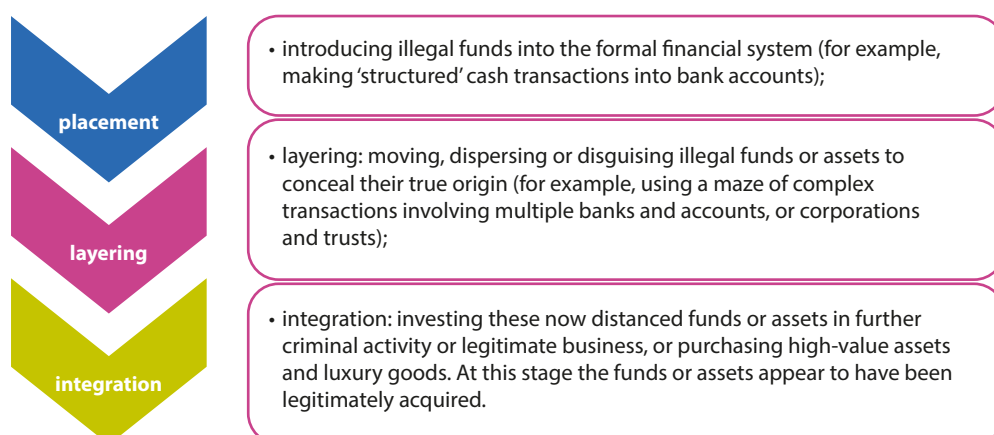
⁽¹⁴²⁾ BDK Fachsymposium Geldwäschebekämpfung 2017, 28-29 June 2017 in Bergisch-Gladbach.

⁽¹⁴³⁾ The Commission has proposed a directive setting out minimum rules for defining criminal offences and penalties for money laundering (Proposal for a Directive of the European Parliament and of the Council on countering money laundering by criminal law, Brussels, 21.12.2016, COM(2016) 826 final.

⁽¹⁴⁴⁾ Professor Dr Brigitte Unger et al., *The amounts and the effects of money laundering*, Report for the Ministry of Finance, 16 February 2006.

⁽¹⁴⁵⁾ Eurostat has developed a systematic method (the ‘tabular approach’ to exhaustiveness) of identifying potential sources of non-exhaustiveness in the national accounts. The tabular approach lists seven types of non-exhaustiveness, one of which (N2, ‘Producers deliberately not registering — illegal’) covers illegal activities. Another one covers deliberate misreporting to evade (or reduce) income tax, value added tax or social security contributions. EU Member States use the *Guidelines to the tabular approach* to calculate and tabulate exhaustiveness adjustments.

⁽¹⁴⁶⁾ Report to Congress in accordance with § 356(c) of the Uniting and strengthening America by providing appropriate tools required to intercept and obstruct terrorism act of 2001 (USA Patriot Act). See Boxes 3-6 in the Annex for a detailed explanation of these stages.

Figure 9: Stages of money laundering

310. Not all three stages need to be followed in money laundering operations; in some jurisdictions only the layering and integration stage may be dominant, or a mix of placement and integration is observed, and not the layering stage.⁽¹⁴⁷⁾ But analysis of these stages is useful, because the institutional units involved, their economic activities and the character of the transactions (productive, distributive or financial) may vary between stages and this may affect the commission/fee for the provision of money laundering services.

4.8.3. Classification in the national accounts and in balance of payments statistics

311. Some institutional units providing money laundering infrastructure are wrongly classified within national accounts as restaurants, bars, clubs, etc., when their primary activity is providing a financial intermediation service. For units where money laundering is the primary activity, national accounts should, once money laundering is identified, re-route these transactions in the statistical surveys from *NACE division 55: Accommodation*, or *NACE division 56: Food and beverage service activities*, to *NACE division 64: Financial service activities*, or *NACE division 66, Activities auxiliary to financial services and insurance activities*, ideally as a separate subcategory for identification purposes within national accounts. Conversely, some of these units are correctly classified if money laundering is only a secondary or tertiary activity.
312. The bottom line when it comes to money laundering is that it is highly likely that the actual money involved is already included in the national accounts, because the process serves to legalise money from IEAs, but is classified wrongly in *NACE* and so inflates the *NACE* activities in which the units are classified based on the business register and/or the sector that owns the asset. What may be missing in the national accounts is the fee charged by the money launderer and possibly the cross-border physical cash flows. Double-counting may occur for money laundering if legal transactions, and service fees, are involved.
313. The GNI Committee considers prostitutes, drug traffickers and smugglers to be self-employed, i.e. a nonemployer-employee relationship is assumed. In view of this position, for the purposes of this *Handbook*, the primary offenders — criminals — are considered self-employed and included in the institutional sector *S.14 Households*.⁽¹⁴⁸⁾
314. Transactions related to money laundering generally affect other legal transactions; proceeds from IEAs may be laundered and spent on legal goods and services in *P.3, P.51g Gross fixed capital formation* (real estate); or *P.53 Acquisitions less disposals of valuables* (arts, antiques). They may be used to purchase financial assets (*currency and deposits (F.2), debt securities (F.3), equity and investment fund shares/units (F.5)*). *B.8g National savings* will also include funds obtained on the basis of IEAs. As *B.9 Net lending/net borrowing* may also be affected, the service fees recorded in the production account and income account need to be recorded in the financial account and the external accounts, in order to avoid significant errors within the accounting

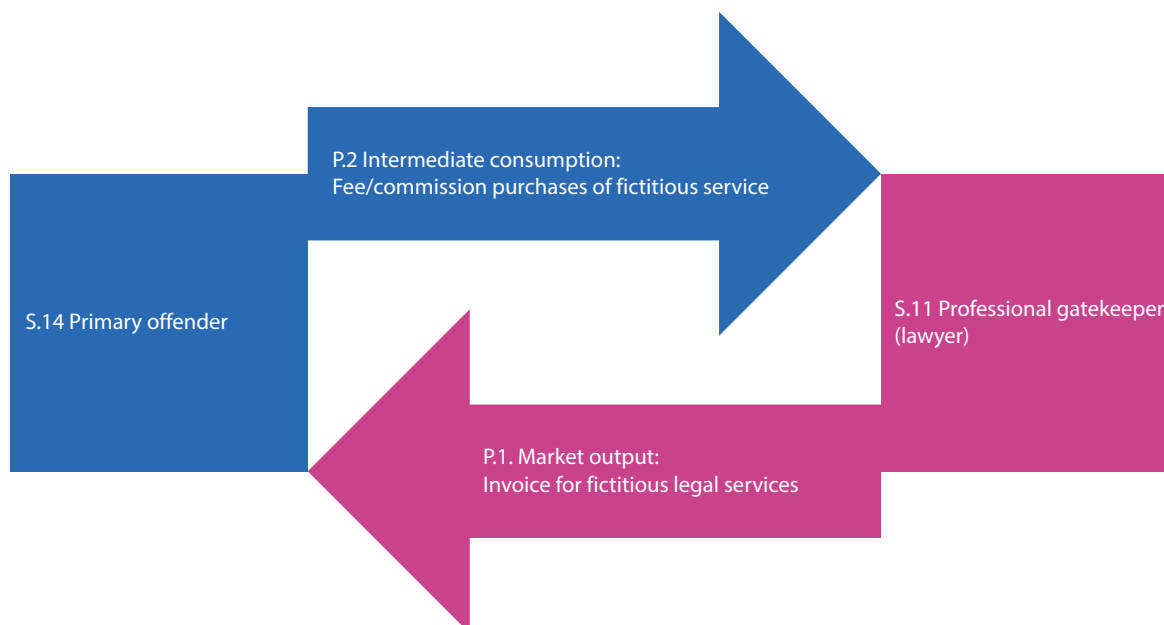
⁽¹⁴⁷⁾ Committee of experts on the evaluation of anti-money laundering measures and the financing of terrorism (Moneyval) (2015); *Typologies report on laundering the proceeds of organised crime*, 17 April 2015.

⁽¹⁴⁸⁾ Eurostat: *Illegal activities in national accounts*, Eurostat document C3/GNIC/230-Rev1, 24th Meeting of the GNI Committee, Luxembourg, 10-11 July 2012.

frameworks. Money laundering transactions are not limited to resident institutional units, because the origin of funds can be better disguised by international transactions. ⁽¹⁴⁹⁾

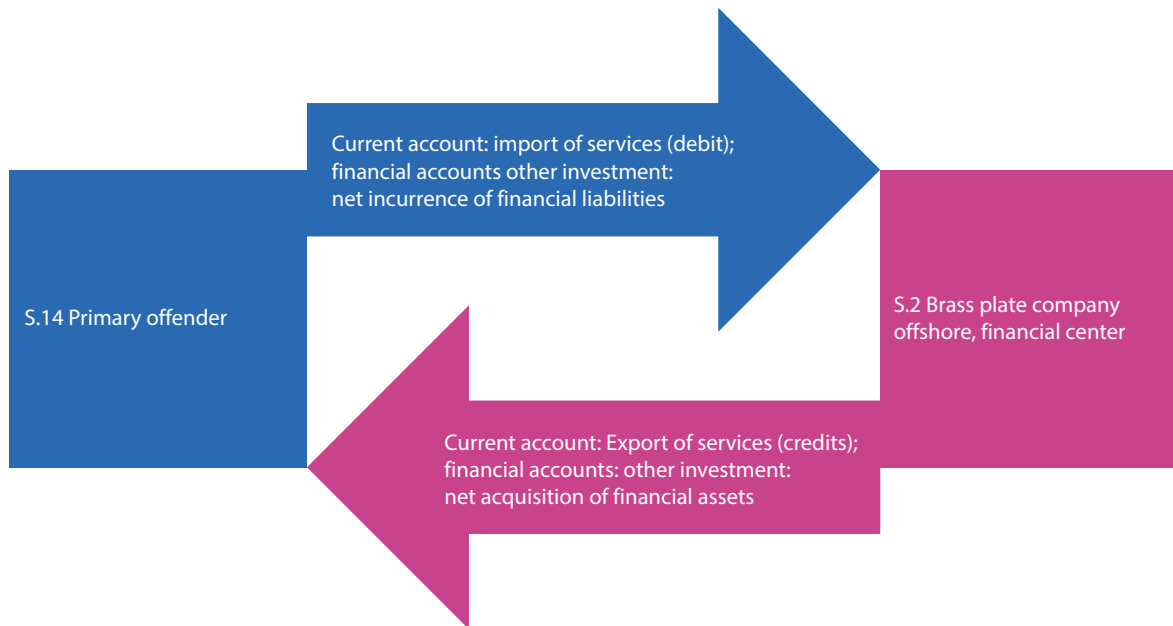
315. Unsyndicated money laundering refers to cases where the primary offender or non-specialist accomplice is involved in opportunistic laundering rather than providing professional services. This may also be referred to as 'self-laundering', or 'stand-alone laundering'. Therefore, no fees/commissions are recorded in the accounting frameworks.
316. Syndicated money laundering services are provided by professional money launderers. Some may be engaged in other legitimate activities, but the assumption is that money laundering is a service provided to a number of clients. The involvement of complicit institutional units is often crucial to the success of the money laundering schemes. Professional gatekeepers should be classed in syndicated money laundering services because they charge a fee (commission) and probably use brass plate companies, investment funds and other more complicated structures to launder the money. The defining criterion is that a fee (commission) is charged and therefore extra value added is created. Syndicated professional money launderers are classified according to the main economic activities in the following institutional sectors:
 - *S.11 Non-financial corporations*, professional gatekeepers, e.g. lawyers, tax advisers, accountants; they could be partnerships (quasi-corporations);
 - *S.125 Other financial intermediaries, except insurance corporations and pension funds* (specialised financial vehicles);
 - *S.126 Financial auxiliaries*: money remitters, currency dealers, issuers of stored value and monetary instruments, shell companies;
 - *S.127 Captive financial institutions and money lenders*: brass plate companies established by professional gatekeepers (e.g. lawyers);
 - *S.2 Rest of the world*: offshore financial centres.
317. Productive-type transactions in the provision of money laundering services have a direct impact on the level of GDP estimates. The money to be laundered equals the mixed income generated by households (primary offenders: e.g. prostitutes, smugglers, drug traffickers). Studies suggest only part of the proceeds from crime is laundered, e.g. 83 % for drugs, 80 % for prostitution.
318. Assume only household units (unincorporated enterprises = primary offenders) require money laundering services. Hence, their output less intermediate consumption (10 % fee/commission paid for money laundering services) equals mixed income.
319. Complicit institutional units' gross output (e.g. that of professional gatekeepers) related to the provision of money laundering services equals receipts from providing money laundering services (fee/commission); value added is obtained by deducting intermediate consumption.
320. Depending on the money laundering model, other productive transactions related to a legitimate but fictitious service (accounting, legal, marketing public relations or similar ones) for which the primary offender is billed should be recorded, even if no services are rendered. The complicit institutional units have a motive to report fictitious transactions in order to hide the laundering services. The reason for including this type of transaction in the accounting framework is that it has counterparts in the money-exchange economy.

⁽¹⁴⁹⁾ Money laundering is considered to be one of a number of serious crimes with a cross-border dimension that has been given particular attention in the Treaty on the Functioning of the European Union (TFEU). Money laundering is one of the so-called euro-crimes with a specific criminal law legal basis in Article 83(1) TFEU.

Figure 10: Base model for money laundering in national accounts

321. Money laundering activities that are distributive-type transactions also need to be recorded in the institutional sector accounts for consistency between the transactions, other flows and the balance sheets. In the money laundering model, they involve transfers of income rather than production between different institutional sectors and do not generate valued added in the production accounts. This is relevant to the mechanism of the placement and layering stages of money laundering, and could affect the allocation of transactions and sector allocation. If there are no day-to-day operations between the primary offender and professional gatekeeper, a sequence of distributive transactions (*D.759 Other miscellaneous current transfers*) to deal with the dirty money before laundering is necessary. A distributive transaction (use) for the dirty money upstream (from the primary offender to the brass plate company) and a distributive transaction (resource) for the clean money after laundering (from the brass plate company back to the primary offender) should be estimated. In the money laundering model, the brass plate company could be considered an institutional unit issuing 'shadow shares' and distributing proceeds to the investor (*D.421 Dividends*).
322. There would be two entries for syndicated money laundering services:
- For the primary offender, service imports in the current account, and the corresponding net incurrence of financial liabilities in the financial account;
 - For the complicit institutional units, service exports in the current account, and the corresponding net acquisition of financial assets in the financial account.

Figure 11: Base model for money laundering in balance of payments statistics



323. The Annex provides numerical examples for two cases: the recording of productive transactions related to un-syndicated money laundering, and distributive transactions involving brass plate companies for syndicated money laundering.
324. Money laundering may be concentrated in one place depending on the stage the laundered funds have reached. At the placement stage, for example, the funds are usually processed relatively close to the underlying activity — often, but not in every case, in the country where the funds originate. At the layering stage, the launderer might choose an offshore financial centre, a large regional business centre, or world banking centres — any location that provides adequate financial or business infrastructure. At this stage, the laundered funds may also only transit bank accounts at various locations where this can be done without leaving traces of their source or ultimate destination. Financial intelligence units collect data on the direction of reported suspected money remittance transactions, and on the source countries of money identified for money laundering.⁽¹⁵⁰⁾ These items of information provide a proxy for the geographical breakdown of imports/exports of money laundering services. Eurostat provides information on incoming and outgoing cash transportations linked to money laundering at the ‘extra-Union’ level.⁽¹⁵¹⁾ At the integration stage, launderers might choose to invest laundered funds in still other locations if they were generated in unstable economies or locations offering limited investment opportunities.
325. Countries may be affected by money laundering in very different ways. For some countries (host countries of money laundering service providers), GDP will increase, while for others (host countries of primary offenders consuming money laundering services), GDP will decrease. Keeping the accounting frameworks comparable between countries requires consistent treatment and reliable data sources in the countries most affected. Consistent estimates for exports/imports of money laundering services could be prepared on the basis of Table 13: Estimates of money available for laundering in 2009, by Member State of origin and Table 14: EU27 by estimated threat in 2009, indicating a country’s attractiveness to money laundering services (exports)⁽¹⁵²⁾.

⁽¹⁵⁰⁾ Rikspolisstyrelsen: *Annual Report; Financial Intelligence Unit*, p. 16.

⁽¹⁵¹⁾ Eurostat Statistical working papers, *Money Laundering in Europe*, 2013 edition, p. 41.

⁽¹⁵²⁾ Project ECOLEF — *The economic and legal effectiveness of anti-money laundering and combating terrorist financing policy — Final report*, Utrecht University, 2013, p. 40.

4.8.4. Data sources

326. As stated in previous chapters, there may be a risk of double-counting when money laundering activities are recorded in the macroeconomic statistics, because a significant proportion of institutional units carrying out legal activities (e.g. restaurants, bars, clubs, etc., or units conducting cross-border transactions mainly in cash) could potentially launder money.
327. These institutional units are registered businesses, potentially paying value added tax (VAT) and corporation tax but using IEAs to obtain turnover which becomes legal once they process it. For national accounts and balance of payments compilers it is important to note that these units could already be covered by current statistical estimates; this increases the risk of double-counting.
328. Another way the proceeds from IEAs might enter the national accounts is via household final consumption expenditure. However, these transactions are likely to take place in currency as non-invoiced sales, i.e. the goods supplier will not record the transaction. This type of transaction is already taken into account in the national accounts through exhaustiveness estimates for VAT fraud with complicity; no further estimation is needed.
329. Alternatively, household use of income from IEAs could be identified in the supply and use tables, either as insufficient household final consumption expenditure in comparison to the supply of consumer products, or as insufficient household income in comparison to household final consumption expenditure.
330. Apart from the inter-linkages, there is the more obvious problem of data. Due to the very nature of the legitimisation process, it is difficult for statistical compilers to distinguish between income from legal and illegal activities for statistical purposes. Available data compiled in official statistics, be it at micro or macro level, conceal the money launderer's profits. So estimates from law enforcement agencies are needed.
331. There is an issue of double-counting in relation to expenditure on legal items by units involved in illegal activities. Here, the use of legal goods and services to launder money may give rise to particular problems. For example, the intermediate consumption needed to provide services is partly accounted for in the national accounts, being recorded as final consumption by households.
332. Since money laundering is a crime that can be kept secret, the unknown sums involved may be substantial. Direct observation is evidently difficult. Nevertheless, these activities may be very important, not only for a reliable picture of the production account, but also because of their effects on income distribution, consumption, saving and finance. Despite the obvious difficulties with measurement, some information is available, e.g. the ECOLEF Report. Information may be obtained from administrative and enforcement records, estimates of key input or major uses, and specific research. It is possible that parts of money laundering activities are included implicitly in the reported data, i.e. from the financial sector. Complicit institutional units may over-report legal activities in an attempt to legitimise income from IEAs. Enterprises engaging in money laundering sometime register as legal businesses, and this affects grossing-up factors for surveys of legal activities. Additional research on the substance of source data, in particular by national compilers, is needed to avoid double-counting and misclassification, as the issue related to double-counting arises at national level.

4.8.5. Recommendation on the provision of money laundering services

333. For the purposes of this *Handbook*, money laundering is defined as a process transferring illegally obtained money or investment from illegal economic activities — those identified by the GNI Committee (i.e. production and trafficking of drugs, prostitution, and smuggling of alcohol and tobacco, based on transactions mutually agreed between consenting parties) and those discussed in Part II — through an outside party to **conceal** their true source and **make** them (appear) legal. The difference between the value of the illegal money and the legalised money should be understood as the value of the provision of money laundering services (PMLS).

5

Country cases: an overview of national experience with statistical recording of IEAs

5.1. Introduction

334. This chapter presents 12 country cases based on national experiences with statistical recording or estimation of IEAs. Most are from the EU (Belgium, Denmark, Finland, Italy, Luxembourg, the Netherlands, Sweden and the United Kingdom) but four are not: Australia, Columbia, Serbia and Ukraine. These add value and range by describing international efforts on statistical estimating and recording of IEAs.
335. The overview summarises publicly available studies produced by the national statistical authorities or by researchers in this area. Each summary begins with a table containing the original title of the study, its author(s), the year of publication and a web link to the original document.
336. The structure of each summary comprises of a short background information note, an overview of the scope, methodology and the data sources used, and a snapshot of the estimates produced by the study. In the cases when this has been possible, the presented country cases have been enriched by the authors of the original publications or by experts from the relevant national statistical authorities. However, the readers of this *Handbook* are encouraged to go further into the detail and go through the original articles some of which are quite extensive researches by their own merit.
337. Last but not least, it should be further pointed out that the numbers presented here might not be the actual estimates that are finally incorporated in Eurostat national accounts and balance of payments. Therefore, Eurostat accepts no responsibility or liability whatsoever with regard to the quality of the estimates presented in this part of the *Handbook*.

5.2. Country case: Australia

| | |
|--------------------------------------|---|
| Original title | <i>The non-observed economy and Australia's GDP, 2012</i> |
| Authors | Australian Bureau of Statistics (ABS) |
| Year of publication | 2013 |
| Link to the original document | http://www.abs.gov.au/ausstats/abs@.nsf/cat/5204.0.55.008 |

Background

338. Transactions for illegal products need to be recorded to obtain comprehensive measures of production and consumption, and to prevent errors appearing elsewhere in the accounts. The *2008 SNA* treats illegal actions that fit the characteristics of transactions (especially mutual agreement between the parties) in the same way as legal actions. Thus, although the production or consumption of certain goods such as narcotics may be illegal, market transactions in such goods should, in principle, be recorded in the national accounts. Due to the difficulty of identifying and valuing illegal transactions, the Australian System of National Accounts (ASNA) gives no explicit estimates for such activities. However,

some illegal transactions are likely to be included in the national accounts if they are reported as part of legal activities or as income for taxation purposes.

Scope, methodology and data sources

339. To evaluate new data sources, experimental aggregates were developed to estimate the size of the illegal drug economy relative to Australia's GDP. The illegal drug economy is defined as the market for transactions involving illegal drugs where there is mutual consent between parties. It is presumed to be the largest component of illegal production in Australia.
340. A general method of measuring supply and demand for specific goods and services in the national accounts is to separately compile supply (production and imports) and demand (consumption and investment) source data from independent sources, and confront the two estimates (compare, contrast and reconcile differences). This method usually exploits the best available data, and the confrontation results in a balanced outcome with less chance of measurement errors in the national accounts. Usually, on aggregate, supply-side data from producers and importers is more reliable than demand-side data from consumers, investors and exporters, as there are relatively few producers and importers compared to the number of consumers and investors for most products. In cases of disagreement between supply-side and demand-side data it is common for supply-side estimates to be greater than demand-side estimates, and for balancing adjustments to be made to final or intermediate consumption, or investment, depending on the nature of the product.
341. Unfortunately, supply-side (production and import) data are unavailable for illegal drugs. However, there are data sources that provide information on various aspects of the demand for illegal drugs. The main source is the Australian Institute of Health and Welfare (AIHW) National Drug Strategy Household Survey (NDSHS). The ABS study estimates final consumption by drug type, and then infers production and imports using supplementary data for prices, drug purity and production costs. The survey results use some assumptions about the nature of the Australian illegal drug market to simplify the estimation method. The rest of this section describes the estimation model and some of the methodological issues related to the model.

Data

342. Illegal drugs' contribution to gross value added (GVA) fell by AUD 0.9 billion from AUD 6.3 billion in 2004 to AUD 5.4 billion in 2010. This fall was largely driven by lower cannabis and heroin consumption. The value of cocaine, amphetamines (non-crystal), amphetamines (crystal), and MDMA has been reasonably stable over the seven years.

Table 1: Australia - Gross value added from IEAs, current prices, AUD million

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|
| Value added: | | | | | | | |
| drugs | 6 305 | 6 589 | 5 731 | 5 784 | 5 926 | 5 659 | 5 392 |

5.3. Country case: Belgium

| | |
|---|---|
| Original title | <i>Calculating value added of prostitution with multiple data: a new approach for Belgium</i> |
| Authors | Adriaenssens, Stef; Hendrickx, Jef |
| Year of publication | 2017 |
| Link to the original document ⁽¹⁵³⁾ | http://journals.sagepub.com/doi/abs/10.1177/1091142117734173 |

Background

343. Underground activities such as prostitution are, by their very nature, not systematically monitored. It would therefore seem impossible to estimate them with the same precision and reliability as other components of the national accounts. The lack of available data forced the researchers to use alternative data sources. However, a well thought-out, strategic use of methods often used by sociologists and anthropologists offers scope for significantly improving current estimates.

Scope, methodology and data sources

344. The starting point is to measure income in one location segment of the prostitution market, 'window prostitution', to obtain a benchmark. Output is broken down into the overall supply of sex workers, average transactions in a given working time, and price per transaction. These factors are estimated for existing red light districts. Data are based on systematic observations of supply and transactions, and of historical prices taken from the internet.
345. The consolidated measure of heterosexual prostitution makes use of the window prostitution benchmark to estimate the relative transaction size in other segments (such as brothels or escort services). User-generated websites allow data to be collected about each sex worker's page impressions, discussions and standardised review forms submitted. Principal component analysis indicates that all indicators refer to one latent variable. This multi-item proxy allows an estimate of the transaction shares of segments other than window prostitution. Combined with historical prices taken from the internet, the output of every heterosexual prostitution segment was measured. An increment of 5 % for the market share of male sex workers allowed a consolidated estimate of all income earned in prostitution activities in Belgium.
346. Finally, non-resident production — production by migrants who reside less than a year in Belgium, that is — is accounted as an import in national accounts. This estimate was based on expert opinions combined with data on sex workers' country of origin.

Data

347. Because the estimates are an outcome of ratios of multiple indicators, confidence intervals are approximated using the Delta method and a number of bootstrap intervals. This results in an estimate for 2015 of the value added of prostitution in Belgium ranging between EUR 531 million and EUR 775 million, which is about twice as much as the former estimate used in the national accounts. In their earlier study, the authors used Fieller's theorem, which allows the confidence intervals to be modelled. The results achieved by this method ranged between EUR 617 million and EUR 688 million.

⁽¹⁵³⁾ A working paper version of the study is available at <https://lirias.kuleuven.be/bitstream/123456789/508655/3/Adriaenssens+2015+09+25+working+paper-1.pdf>

5.4. Country case: Colombia

| | |
|--------------------------------------|---|
| Original title | <i>Enclave: Cultivos Ilícitos. Fases agrícola e industrial</i> |
| Authors | Departamento Administrativo Nacional de Estadística |
| Year of publication | 2011 |
| Link to the original document | https://www.dane.gov.co/files/investigaciones/pib/especiales/Met_enclave_ilicitos_2000_2012.pdf |

Background

348. The Directorate of Synthesis and National Accounts at the National Statistical Office of Colombia (Departamento Administrativo Nacional de Estadística — DANE) conducts research that complements the information usually disseminated. Given the importance of some of these studies and their contribution to macroeconomic research, they have been made available to the public for consultation.
349. The compilation of the national accounts data of Colombia follows the guidelines provided by international organizations. Therefore, DANE follows the recommendations set by the guidelines and estimates the transactions in the illegal economy, however these are not included in national data estimates but organised within a 'virtual enclave', as its referred to by the authors.

Scope, methodology and data sources

350. The study focuses on the production and transformation of illicit drugs and the subsequent generation of income by exploring the phenomenon both from the supply and from the demand side. Thus the study investigates the production of coca leaf crops, opium and marijuana⁽¹⁵⁴⁾ (agricultural phase) and derivatives produced in chemical processing such as cocaine hydrochloride and heroin (industrial phase). The transactions associated with these illegal economic activities are isolated within a virtual territory called 'Enclave of illicit crops'. For statistical reasons, international trade of the products and the associated capital flows are not in the scope of the study.
351. The study uses various national and international data sources most important of which are:
- United Nations Office on Drugs and Crime: data from the Integrated Illicit Crops Monitoring System (Sistema Integrado de Monitoreo de Cultivos Ilícitos — SIMCI), as well as conversion coefficients; data from Prevention of the diversion of drugs precursors in the Latin American and Caribbean Region (Prevención del Desvío de Sustancias Precursoras de Drogas en los Países de América Latina y el Caribe — PRELAC) on cocaine cost structure.
 - National Drugs Office (Dirección Nacional de Estupefacientes — DNE): data from the Information System of the Colombian Drug Observatory (Sistema de Información de Drogas de Colombia — SIDCO).
 - Dirección de Antinarcóticos (DIRAN – the Anti-Drug Office of the Colombian Police): data on prices together with UNODC.
 - Drug Enforcement Administration: data on purity of drug seized in the USA.

Data

352. It should be noted that DANE disseminates annually a bulletin with updated figures of the present study. The last publication is from January 2017 where time series until 2015 are available. Additionally detailed annual data on the enclave activities is available in supply-use tables⁽¹⁵⁵⁾.

⁽¹⁵⁴⁾ Due to irregularities found in data on land areas and production of marijuana and opium, the production of these crops and their derivatives is calculated indirectly based on quantities consumed in the Colombian domestic market.

⁽¹⁵⁵⁾ <https://www.dane.gov.co/index.php/estadisticas-por-tema/cuentas-nacionales/investigaciones-especiales#pib-de-enclave-de-cultivos-il%C3%ADcitos-fases-agr%C3%ADcola-e-industrial-base-2005-2015pr>.

Table 2: Colombia - Gross value added from IEAs, Current prices, COP billion

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* | 2015** |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Value added: | | | | | | | | | | | |
| agricultural phase | 2 023 | 1 879 | 2 043 | 1 581 | 1 416 | 1 224 | 1 097 | 938 | 781 | 1 126 | 1 867 |
| industrial phase | 3 839 | 3 597 | 3 921 | 3 152 | 3 067 | 2 615 | 2 396 | 1 893 | 1 710 | 2 763 | 3 861 |
| total | 5 862 | 5 476 | 5 964 | 4 733 | 4 483 | 3 839 | 3 493 | 2 831 | 2 491 | 3 889 | 5 728 |

* provisional data; ** preliminary data

353. According to preliminary figures, gross value added from IEAs was decreasing steadily until 2013 when it reversed and in 2015 values went back to their starting levels. This trend was similar for both GVA from the agricultural and from the industrial phases which kept approximately a steady proportion of 1:2 along the period. In terms of percentage of GDP, however, drug-related IEAs in Colombia accounted about 0.9 % in 2005 and only 0.3 % in 2015.

5.5. Country case: Denmark

| | |
|--------------------------------------|--|
| Original title | <i>Estimating illegal activities in Denmark</i> |
| Authors | Statistics Denmark |
| Year of publication | 2005 |
| Link to the original document | www.dst.dk/ext/846446758/0/.../ENG_Estimating-illegal-activities-in-Denmark--pdf |

Background

354. Both the 1993 SNA and the ESA 95 state that all economic activity should be included in the national accounts — this includes illegal activity. One important argument for inclusion of these activities is that it will make comparison of national accounts between countries easier as some activities are legal in some countries while illegal in others.

Scope, methodology and data sources

355. The following areas of illegal activities are considered in this report:

- smuggling of alcohol, tobacco and confectionery (supply side);
- prostitution services (supply side);
- drugs (demand side).

356. Value added is estimated from the supply side as well as from the demand side in each of the three areas (except smuggling, which is only estimated from the supply side). However, the GDP effects are only calculated from either the demand side or the supply side, which is indicated in the parentheses above, depending on the quality of data on each topic.

357. The data and information used in the report were mainly found in various reports drafted by the police, the National Board of Health, the Danish Centre for Research on Social Vulnerability and the Ministry of Taxation. It has been difficult to find solid data on these activities due to their illegal nature, and the results of the 2005 report are therefore subject to some uncertainty. All estimates are made as price time quantities, due to the nature of the information available.

Data

358. Table 3 shows the value added of each group of illegal activities. Drugs value added is the main contributor to the GDP effects, with values ranging from DKK 900 million in 2004 to DKK 1 478 million in 1998, whereas value added from smuggling only ranges between DKK 181 and 335 million per year. The value added of prostitution, which amounts to approximately DKK 1 200 million per year, is only estimated for 2002–2004 due to lack of data. For the period 1998–2001, the value is therefore assumed to equal the 2002 value, adjusted using the consumer price index.

Table 3: Denmark - Gross value added from IEAs, Current prices, DKK million

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|
| Value added: | | | | | | | |
| prostitution | 1 057 | 1 083 | 1 115 | 1 141 | 1 169 | 1 161 | 1 155 |
| drugs | 1 478 | 1 359 | 1 339 | 1 217 | 1 477 | 1 228 | 900 |
| smuggling | 207 | 181 | 203 | 257 | 335 | 281 | 241 |
| total | 2 742 | 2 623 | 2 657 | 2 615 | 2 981 | 2 670 | 2 296 |

5.6. Country case: Finland

| | |
|--------------------------------------|---|
| Original title | <i>Illegal economic activities in balance of payments and national accounts</i> |
| Authors | Statistics Finland; Myllymäki, Merja |
| Year of publication | 2017 |
| Link to the original document | http://europa.eu/lqY83CF |

Background

359. In 2015, a grant-funded project 'EU: Content development of national accounts' was launched which included 'Illegal economic activities in balance of payments'. The objective of the project was to update the methodology for the illegal economy and analyse new data sources. Another aim was to develop the calculation process in order to ensure uniform handling and consideration of the illegal economy in the national accounts and balance of payments.
360. The project focused on developing sub-areas of the illegal economy that had already been considered in the national accounts and balance of payments, no new sub-areas were considered. Special attention was paid to the country division of the illegal economy.

Scope, methodology and data sources

- Prostitution

361. Taking into consideration the legislation in Finland, recording prostitution as part of the illegal economy is misleading. Estimates of prostitution should be included in calculating the national accounts, as before, but as part of the grey economy in future.
362. Regarding data, the main sources are the Kontula report (Kontula, *Prostituutio Suomessa*, 2005) and comments from Pro-tukipiste, an independent expert organisation active in Finland. Statistics on offences and coercive measures published by Statistics Finland also provide data on reported offences related to pimping and the sex trade. The basic statistical data come from the 'reported offences' system used by the police. Data on cases sentenced in court come from the statistics on prosecution, sentences and

punishment. The source is the Legal Register Centre. Court statistics can give some indication of the development of the phenomena, but the figures are not directly applicable to estimating the actual change in the annual value of prostitution.

363. Estimates of prostitution are based on estimates on the supply side. The GNI Committee recommends a calculation method based on types of prostitution, like street prostitution or prostitution taking place at clubs. In Finland, the calculation is not based on the types of prostitution, instead, prostitution in Finland is divided into visiting prostitutes and prostitutes permanently residing in Finland, and then into Finnish and foreign prostitutes.
 - Drugs
364. Finnish legislation defines the data collection tasks of the National Institute for Health and Welfare (THL) concerning narcotics. The task of the THL is to collect, produce and acquire data on narcotics for statistics and research and on actions taken to prevent illegal use of narcotics. The THL produces the annual report *Huumetilanne Suomessa (Finland drug situation)* which is one of the national annual reports of the European information network on drugs and drug addiction (REITOX) coordinated by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Other important data sources are various expert articles, e.g. by experts at the THL and the National Bureau of Investigation.
365. The figures for the illegal economy, for narcotics, are based on supply-side estimates. In the conventional calculation method, users are divided into two groups: regular and occasional users. The number of users, size of a dose, price of a hit and number of usage days per year are estimated for each group, by narcotics group. There are estimates available on each of these but do note that each also involves uncertainties. In addition, a new calculation method has been introduced, measuring concentrations of narcotic substances in waste water.
 - Smuggling alcohol and tobacco
366. The THL releases an annual statistical report *Alcoholic beverage consumption* and a *Yearbook of alcohol and drug statistics*. It publishes the total consumption of alcoholic beverages as 100 % alcohol. Total consumption consists of recorded (retail and licensed consumption) and unrecorded consumption.
367. Smuggling is estimated to account for half of illegal manufacture and smuggling of alcohol. Alcohol is most likely smuggled to Finland from countries with lower price levels, mainly Russia and Estonia. Based on the differences in the alcohol price indicators of Finland and those countries, the import value of smuggled alcohol is estimated. The margin is estimated to be half of the difference between the so-called legal value and the import value.
368. For tobacco, in 2016 the tax administration's Grey Economy Information Unit published a report on tobacco tax actors and the grey economy (*Tupakkaverotoimijat ja harmaa talous*). The report studied the grey economy related to tobacco tax, also including smuggling, and how tobacco tax-authorized enterprises handled their obligations. The THL also publishes annual tobacco statistics that contain data on tobacco consumption, price development and taxation of tobacco, tobacco legislation and smoking among the population.

Data

369. Due to confidentiality considerations, figures are masked in the public version of the report. For research purposes, please contact Statistics Finland directly.

5.7. Country case: Italy

| | |
|--------------------------------------|---|
| Original title | <i>Estimating illegal activities in the Italian national accounts</i> |
| Authors | ISTAT; Baldassarini, Antonella; Sallusti, Federico |
| Year of publication | 2017 |
| Link to the original document | http://europa.eu/!Nq47wy |

Background

370. The importance of including illegal activities in the estimates of economic aggregates and, consequently, in GDP estimates is acknowledged in the Regulation on the *European System of Accounts (ESA 95)*. Italy's national accountants have developed a general approach to estimating illegal activities that follows Eurostat recommendations on methods, quality and reliability of data sources, identification and the solution to double-counting.

Scope, methodology and data sources

- Drugs

371. Two main data sources are identified in the study. One is the United Nations Office on Drugs and Crime (UNODC), which collects relevant information on international production of and trafficking in illicit drugs and adopts an integrated approach at international level, updating its *Global illicit drug trends* report each year. The other is the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), which coordinates the activities of different focal points in European countries. For Italy, the focal point is the Anti-Drug Policy Department (DPA), which conducts two relevant surveys on illicit drug consumption. Other sources of data are provided by the Central Directorate of Anti-Drug Policies (DCSA), the fiscal police, border police, justice and health ministries, and the National Research Council (CNR).
372. To provide estimates consistent with the real structure of the market, and more accurately reflect the different economic flows along the supply chain for illicit drugs (and the interaction with the legal economy), estimation is based on a conceptual model that distinguishes three steps in the value chain for substances: (1) international wholesale trade; (2) domestic wholesale trade; and (3) retail trade. The estimation procedure is applied to each step, and the results then aggregated to obtain a single value for trade in each illicit drug.

- Prostitution

373. Information and data sources about prostitution are lacking. The few available data are collected from non-profit organisations or prostitutes' associations that allow local rather than national activity to be quantified. The value of prostitution in Italy is estimated mainly using data and information from specific studies. From some of these studies, it can be assumed that in Italy there is relevant domestic production of prostitution provided entirely for the resident population. The share of import and export services is considered not to be significant.
374. The estimation procedure is based on the number of prostitutes split into three types of service: street, apartment, and nightclub prostitutes. The corresponding quantity of daily activity for each type and the number of working days per year determines overall activity. A value is obtained by using the average cost of each type of service.

- Smuggling

375. This section of the study focuses on smuggling of tobacco products. To estimate smuggling activity, Eurostat suggests using demand indicators based on the smoking population and consumption habits. This approach has been tested in Italy; however, the results have proven unusable since the survey that provides this information seems to underestimate the smoking population and returns structural underestimates compared to other sources on official sales. It was therefore decided to use a supply-side approach based on administrative data on seizure by police and customs (the Guardia di Finanza and customs agency). These administrative data are available yearly and, in some cases, are also broken down by brand.

Data

376. Aggregates for the 2002–2011 time series have mainly been obtained via a separate estimate for each year. There is no preceding time series from which to 'backcast' aggregates in the usual way. The characteristics of the relevant information (not always available annually) called for particular means of data processing (interpolation, use of indirect indicators, dynamic assumptions) in order to obtain the whole set of information for each year.
377. About three quarters of the estimated gross value added (GVA) of IEAs was linked to illicit drugs. For 2002–2011, the overall GVA of IEAs peaked in 2007, then fell for three consecutive years before picking up, in line with general economic trends linked to the business cycle and the global financial crisis.

Table 4: Italy - Gross value added from IEAs, current prices, EUR million

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Value added: | | | | | | | | | | |
| prostitution | 2 681 | 2 798 | 2 903 | 2 980 | 3 085 | 3 158 | 3 256 | 3 371 | 3 455 | 3 550 |
| drugs | 10 174 | 10 117 | 10 121 | 11 045 | 11 200 | 12 524 | 11 511 | 10 764 | 10 100 | 10 540 |
| smuggling | 370 | 237 | 282 | 326 | 300 | 344 | 362 | 413 | 320 | 242 |
| total | 13 225 | 13 152 | 13 306 | 14 351 | 14 585 | 16 026 | 15 129 | 14 548 | 13 875 | 14 332 |

5.8. Country case: Luxembourg

| | |
|--------------------------------------|---|
| Original title | <i>Rapport final sur l'estimation des activités illégales dans l'évaluation du PIB et RNB du Luxembourg</i> |
| Authors | STATEC; Weber, Olivier |
| Year of publication | 2014 |
| Link to the original document | http://europa.eu/!Yu36CP |

Background

378. The objective of the study is, within the existing framework of the *ESA 95/ESA 2010*, to provide methods appropriate to Luxembourg's national circumstances to take illegal activities into account in the calculation of GDP and GNI and to revise the methods put in place following the 2005 pilot study.

Scope, methodology and data sources

379. The first phase of the study focused on defining the methodological framework and concepts to implement. Next, the work focused on estimating prostitution. The 'drug' component was easier and faster to adapt because the estimates came from the study made in 2005. In general, the work done has helped to clarify different aspects of illegal activities related to prostitution and drugs in Luxembourg and to conduct a comprehensive inventory of available statistics.

- Prostitution

380. The following data sources were used:

- a quantitative estimate of the economic impact of prostitution on GDP and GNI, based mostly on expert opinions from the judicial police;
- a previous feasibility study on the inclusion of illegal activities in assessing GDP and GNI in Luxembourg, conducted in 2005;
- the summary monograph *Mapping of prostitution* (2007);

- reports by the TAMPEP network (the European Network for HIV/STI Prevention and Health Promotion among Migrant Sex Workers) based on information from the drop-in service run by the Luxembourg Red Cross;
 - the business register;
 - various relevant websites.
381. The study stratifies prostitution by five types depending on where the service is offered: street; nightclub; massage parlour; escort; and apartment.
382. A supply-side approach is chosen to estimate the various NA aggregates for the period from 2002 (the first year with data available related to the 2005 survey) to 2013 (the date of the interviews for the later study). A backward projection is then made for the years 2000 and 2001. This part of the study concludes by presenting an example of a supply-use table based on 2012 estimates.
- Drugs
383. The following data sources were used in the study:
- the annual report of the Luxembourg Information Network on Drugs and Drug Addiction (RELIS);
 - the database of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA);
 - the *World drug report* (UNODC);
 - customs information on seizures, average drug prices and interviews;
 - interviews and expert opinions used for benchmarking and quality control;
 - data from Health Behaviour in School-aged Children (HBSC) surveys.
384. The study stratifies drug consumption by four types depending on the type of drug used: heroin, cocaine, cannabis and synthetic drugs.
385. Then NA aggregates are estimated for all individual strata, assuming no intermediate consumption. The period is from 2002 to 2013, as above, with backward projection as far as 2000.
- Smuggling
386. The study concludes, from interviews with customs and the police, that contraband does not represent a significant part of economic activities in Luxembourg.

Data

387. The estimated gross value added from IEAs fell sharply between 2003 and 2004, mainly because prostitution numbers fell after artist visas previously granted by the Ministry of Justice were abolished. In subsequent years, total GVA from IEAs increased steadily and almost doubled by 2013, to an estimated EUR 108 million. This figure was still half the estimated level in 2003.

Table 5: Luxembourg - Gross value added from IEAs, current prices, EUR million

| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|
| Value added: | | | | | | | | | | | |
| prostitution | 199 | 57 | 65 | 73 | 78 | 83 | 87 | 92 | 97 | 101 | 102 |
| drugs | 5 | 8 | 8 | 9 | 8 | 6 | 6 | 6 | 6 | 7 | 7 |
| total | 205 | 65 | 72 | 83 | 86 | 89 | 94 | 98 | 103 | 108 | 108 |

5.9. Country case: Netherlands

| | |
|--------------------------------------|---|
| Original title | <i>The contribution of illegal activities to national income in the Netherlands</i> |
| Authors | Kazemier, Brugt; Bruil, Arjan; Van De Steeg, Annemieke; Rensman, Marieke |
| Year of publication | 2012 |
| Link to the original document | https://www.cbs.nl/-/media/imported/documents/2012/17/2012-04-x10-pub.pdf |

Background

388. Illegal activities such as smuggling, prostitution and the production and sale of illicit drugs contribute to a country's national income. In practice, however, they are not included in the statistics, because there are hardly any reliable estimates of the size of these activities. For Statistics Netherlands, this has been an incentive to do research in this field. The first estimates are by Van der Werf (1997, 1998).⁽¹⁵⁶⁾ They estimated the value added of the illegal economy in 1995 at less than one per cent of (gross) national income (at market prices). Smekens and Verbruggen (2005) repeated and extended this research, with similar results. In 2010 Statistics Netherlands started a third study, sponsored by Eurostat. Again the conclusion is that the illegal economy is less than one per cent of the national income.

Scope, methodology and data sources

389. To estimate accurately the size of illegal activities that should contribute to the national income we have to identify the relevant illegal activities. For the Netherlands, they are as follows:
- Production of and trade in illicit drugs
390. The consumption of illicit drugs is calculated as the product of the number of drug users, average consumption per user and the street price of drugs. The number of drug users is taken from Trimbos (1999–2008) and StatLine (Statistics Netherlands' database). For heroin and cocaine a distinction is made between heavy addicts and other users. Missing data is added by interpolation or extrapolation. Average use per drug user is taken from Korf (2003), Van der Werf (1997) and Van der Heijden (in Decorte, 2008). The street prices of illicit drugs can be found in Van der Werf (1997), UNODC (2000–2010), Smekens en Verbruggen (2005), Niesink et al. (2006–2008), Neve et al. (2007), Trimbos (2007) and EMCDDA (2009).
- Prostitution
391. Prices are assumed to be EUR 50 per client in 2008 and rise in tandem with the consumer price index, except for 2002. With the introduction of the euro, prices probably rose by at least 10 % rounded to the nearest EUR 5. The number of prostitutes was set at 25 000 in 1999, and then as following the trend of the male population aged 15–65 for other years. The number of clients is set at 20 a week, and working weeks at 40 a year (Flight and Hulshof, 2006).
- Fencing — handling stolen goods
392. The sale of stolen goods is a transaction by mutual agreement which may generate income. Three types of transactions are distinguished. The first is the sale of stolen goods by the thief to a consumer. This is comparable with the sale of second-hand goods within the household sector and does not result in value added. The second is the sale of stolen goods by the thief to a company. For that company it is intermediate consumption and as a consequence its profits may diminish. We assume that this phenomenon is uncommon and therefore negligible. The third possibility is that stolen goods are sold via a fence.
- Illegal temporary employment through employment agencies

⁽¹⁵⁶⁾ For all bibliographical references in this section, see the original publication cited.

393. The wages and profit margin are based upon Grijpstra and Zuidam (2004) and Smekens and Verbruggen (2005). They are set at EUR 5 per hour in 2001 and 100 % in all years. The wages in other years are assumed to follow the collectively agreed wage changes (www.statline.nl). The illegally mediated working years are taken from Grijpstra and Zuidam (2004), Bolhuis et al. (2006) and De Bondt and Grijpstra (2008). They provide estimates for four years: 1999, 2004, 2006 and 2008. For the other years, the illegally mediated working years were interpolated or assumed to reflect changes in the volume of (legal) labour, as published by Statistics Netherlands.

- Illegal gambling

394. According to Donker et al. (2001), intermediate consumption (use) of illegal casinos and live poker is 50 % of net receipts. For lotto, bingo and e-games it is assumed 10, 10 and 5 %, respectively.

- Illegally copying software, games, movies and music

395. Breininfo (2003) puts the number of illegal copies in 2002 at one fifth of legal copies, of which 40 % was sold professionally. So the number of illegal copies sold would be equivalent to 8 % of legal copies. Based on data from www.anti-piracy.nl, this was 11.6 % for 2004 and 2006. According to anti-piracy.nl (2004, 2006), the price of an illegal copy was EUR 5.75 in 2004 and EUR 6.00 in 2006. For 2005 the price is interpolated, for the other years the price is extrapolated from the consumer price index for blank media.

- Cigarettes smuggling

396. Based on data from Dutch customs and expert studies, it is assumed that until 2005 the domestic consumption of illicit cigarettes was 2.5 % of total consumption of cigarettes and that this has increased by half a percentage point per year since then. This results in an increase in the domestic consumption of illicit cigarettes from less than EUR 25 million in 1995 to almost EUR 80 million in 2008. The total consumption of cigarettes is the product of the consumption of cigarettes per capita and the size of the Dutch population.

Data

397. Illegal activities' contribution to national income in the Netherlands increased from about EUR 2 850 million in 2002 to almost EUR 3 800 million in 2008. This is the equivalent 0.6 % of gross national income.

Table 6: Netherlands - Gross value added from IEAs, current prices, EUR million

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|
| Value added: | | | | | | | |
| drugs | 1 214 | 1 292 | 1 306 | 1 291 | 1 217 | 1 191 | 1 291 |
| prostitution | 478 | 492 | 490 | 499 | 506 | 505 | 520 |
| fencing | 187 | 177 | 189 | 191 | 200 | 190 | 202 |
| employment | 455 | 496 | 528 | 700 | 881 | 1 008 | 1 151 |
| gambling | 91 | 88 | 101 | 86 | 95 | 103 | 154 |
| copyright | 390 | 510 | 505 | 479 | 334 | 366 | 383 |
| smuggling | 33 | 56 | 61 | 78 | 55 | 75 | 96 |
| total | 2 848 | 3 111 | 3 180 | 3 324 | 3 288 | 3 438 | 3 797 |

5.10. Country case: Serbia

| | |
|--------------------------------------|--|
| Original title | <i>Illegal economic activities in the Republic of Serbia in period 2006-2015</i> |
| Authors | Radisavljević, Goran; Dabetić, Danijela; Bumbić, Duško; Gavrilović, Dušan |
| Year of publication | 2017 |
| Link to the original document | http://europa.eu/!uC64tk |

Background

398. The definition of IEAs estimated and included in Serbian national accounts follows the concepts and definitions of the System of National Accounts 2008, the European System of Accounts 2010, and the sixth edition of the *Balance of payments and international investment position manual*. Exhaustiveness adjustments related to illegal activities are estimated and tabulated according to *Measuring the non-observed economy: a handbook* and Eurostat's *Guidelines on the tabular approach to exhaustiveness* (2005) with respect to recommended methods and available data sources. Estimates of illegal activities (including back-data from 1995), prepared as part of a major revision of national accounts data, have been included in the official national accounts estimates since October 2014, when the Statistical Office of the Republic of Serbia (SORS) officially started to implement the new methodology for national accounts, *ESA 2010*.
399. On the production side, adjustments for illegal activities (prostitution and narcotics) are made to the household sector (S.14). On the expenditure side, adjustments for illegal activities are made to household consumption expenditure (HFCE) and exports and imports of goods. Corrections are made within HFCE for prostitution, narcotics and tobacco. Corrections to exports are made for illegal exports of tobacco, while import corrections are made for illegal imports of drugs.

Scope, methodology and data sources

400. Three types of illegal activities have been recognised as relevant in Serbia.
- Prostitution
401. A supply-based approach is applied to estimate the production, consumption and income from prostitution. The main data sources are: records of the police office of the Republic of Serbia, which provided the data on the number of submitted charges (for people dealing with prostitution and intermediation); and data from the media. Based on these data, on international conventions relating to the efficiency of police work in this field, and on the experience of other countries, the total number of people engaged in this activity in the Republic of Serbia is estimated. Relying on the opinion of experts in the field and on allegations in the media (newspaper, internet etc.) three types had been identified: street, hotel and high-class prostitution. The output for each type is calculated using the following data: number of prostitutes by type; average number of working days; average daily earnings, calculated according to the average price per service or client. Due to the paucity of data sources, no estimates have been made for cross-border consumption of prostitution services.
- The production and smuggling of narcotics
402. A demand-based approach is applied to estimate the production, consumption and income from drugs-related activities. Estimates are based on the following data: number of drug users; price of drugs sold on the street; average daily and annual consumption by type of drugs, including data on average size of doses and purity of drugs. The main data come from the criminal and border police, health institutions, other countries' experiences, the results of international investigations, and recommendations in the annual report of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and by the United Nations Office on Drugs and Crime (UNODC). The value of imports of narcotics is estimated on the basis of the estimated quantities necessary to meet total consumption needs in Serbia and on the basis of data on prices of narcotics on the main import markets. The imported quantities of narcotics are estimated taking

into account estimated data on consumption of narcotics, purity of drugs on the street and purity at point of import. The import price of narcotics is collected from the media and internet pages.

- Smuggling of tobacco

403. Using various data sources to estimate tobacco production and consumption it was found that there are no grounds for making exhaustiveness adjustments for tobacco on the production side, so they are only made for consumption on the expenditure side, by applying the commodity flow method. The commodity flow method is applied to estimate smuggling, using data on production, exports and imports. Data on excise obtained from tax administrations are also used. Quantitative data obtained using the commodity flow method are multiplied by the average prices of cigarettes; the resulting rough value of production was very similar to the Treasury data on excise duties on cigarettes. For more comprehensive demand-side data on tobacco (including separate estimates for HFCE on tobacco), analyses of additional data sources have been carried out, involving data from the Ministry of Interior (on seized quantities of tobacco), the Household Budget Survey (HBS), the Retail Trade Survey (RTS) and various domestic and international tobacco surveys (including international comparison based on purchasing power parity — PPP).

Data

404. The levels of gross value added for both prostitution and drugs production in the Republic of Serbia were stable in 2008–2015. Both these illegal activities had a similar impact on Serbian GDP, accounting for between about 0.3 % and 0.4 % of GDP.

Table 7: Serbia - Gross value added from IEAs, current prices, EUR million

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------------------|------|------|------|------|------|------|------|------|
| Value added: | | | | | | | | |
| prostitution | 111 | 101 | 101 | 114 | 107 | 110 | 112 | 112 |
| drugs | 114 | 119 | 117 | 120 | 123 | 125 | 122 | 120 |
| total | 225 | 220 | 218 | 234 | 230 | 235 | 234 | 232 |

5.11. Country case: Sweden

| | |
|--------------------------------------|---|
| Original title | <i>Illegal activities in the Swedish National Accounts</i> |
| Authors | Wärmark, Birgitta; Björling, Mattias; Pappila, Mårten; Engdahl, Jessica |
| Year of publication | 2008 |
| Link to the original document | http://www.scb.se/statistik/NR/NR0102/Illegal%20activities.pdf |

Background

405. In 2007 the Swedish national accounts were substantially revised, and illegal activities were included for the first time, for the whole time series from 1993 onwards.

Scope, methodology and data sources

406. The following areas were covered:

- prostitution services;
- narcotics;
- smuggling of alcohol and tobacco;

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- home production of alcohol;
 - gambling.
407. Information on these kinds of activities is scarce and much more unreliable than for most other areas of the economy. In addition, research and reports on them typically have aims other than measuring economic variables. They focus on social motives and effects and on prevention activities. However, any available information found was used and combined to make economic estimates. It is of course important to stress that they are not the absolute truth, but the best effort that could be made thus far.
408. The conclusions drawn from work carried out by Eurostat and other international bodies are that in this sector the Member States should focus on economically significant factors and simplify the calculations where possible. Totally accurate measurements of illegal activity are not possible; instead, a pragmatic approach is called for.
409. Statistics and other information have mainly been found in various official reports from ministries, central and local social authorities, project groups, networks, the police, universities, the customs and individual studies.

Data

410. Drugs prices increased sharply in 1999, contributing to the high estimate for that year. Value added from drugs is the main contributor to the GDP effects. Gambling is the second biggest item. Prostitution fell in 1999, as a law against buying sexual services was passed. An immediate reduction in street prostitution was noticed. New ways of advertising have gradually been established in this area. The internet and mobile telephones have to some extent replaced previous patterns of contact.

Table 8: Sweden - Gross value added from IEAs, current prices, SEK million

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|
| Value added: | | | | | | | |
| alcohol, smuggling | 106 | 142 | 207 | 139 | 205 | 295 | 280 |
| alcohol, home made | 412 | 438 | 424 | 292 | 304 | 237 | 179 |
| wine | 26 | 26 | 36 | 78 | 70 | 79 | 71 |
| strong beer | 215 | 236 | 335 | 497 | 637 | 614 | 594 |
| tobacco | 216 | 223 | 241 | 240 | 220 | 189 | 196 |
| prostitution | 427 | 472 | 520 | 582 | 585 | 529 | 520 |
| gambling | 1 021 | 994 | 1 035 | 1 000 | 983 | 953 | 974 |
| drugs | 2 386 | 2 363 | 2 195 | 2 453 | 2 282 | 2 292 | 2 073 |
| total | 4 809 | 4 894 | 4 994 | 5 281 | 5 287 | 5 188 | 4 887 |

5.12. Country case: Ukraine

| | |
|--------------------------------------|---|
| Original title | <i>Methodological provisions of an updated version of national accounts 2008</i> |
| Authors | State Statistics Service of Ukraine |
| Year of publication | 2013 |
| Link to the original document | http://ukrstat.gov.ua/metod_polog/metod_doc/2013/398/met_polog.zip |

Background

411. SNA 2008 specifies that economic activities not directly observed should be included in the production of national accounts. To this end, the State Statistics Service of Ukraine is collaborating with Eurostat and UNECE to produce estimates of the non-observed economy including estimates of IEAs.

Scope, methodology and data sources

412. The practice approved in Ukraine follows the GNIC recommendations: the IEAs recorded in the national accounts data are:
- production and distribution of drugs;
 - prostitution;
 - illegal production distribution of alcohol and tobacco.
413. The estimation methods are based on Eurostat's *Guidelines to the tabular approach to exhaustiveness*, on the guidelines in the *OECD Handbook on measuring the non-observed economy*, and on information and expert advice in collaboration with the statistical offices of Poland and Denmark. Estimates of IEAs are based on determination of supply or use of illegal goods and services in quantitative terms, and average prices.
414. Estimates of prostitution use the data from sociological surveys and special studies (*Analytical report of FCS International HIV/AIDS Alliance in Ukraine*) on the number of employees in this area and prices of these services.
415. To calculate the volumes of production and consumption of drugs, data on the number of consumers, based on periodic reports such as the *World drug report* and the *National report on the drug situation*, were used. Data on the volume of drugs seized and average prices are taken from Ministry of Internal Affairs data. The trading margin on and cost of narcotic drugs manufactured in Ukraine complete the total for this type of illegal activity.
416. The commodity flow method is used to determine the amount of contraband alcohol and tobacco. Consumption and smuggling are determined by international data on the levels of consumption in Ukraine and by building natural-value balance sheets.

Data

417. The value added of IEAs in Ukraine stood at about 0.3 % of GDP in 2015 (drugs 0.2 %, prostitution 0.1 %). This is slightly lower than the 0.4 % referred to in the study.

5.13. Country case: United Kingdom

| | |
|--------------------------------------|---|
| Original title | <i>Changes to national accounts: inclusion of illegal drugs and prostitution in the UK National Accounts</i> |
| Authors | Abramsky, Joshua; Drew, Steve |
| Year of publication | 2014 |
| Link to the original document | http://www.ons.gov.uk/ons/guide-method/method-quality/specific/economy/national-accounts/articles/2011-present/inclusion-of-illegal-drugs-and-prostitution-in-the-uk-national-accounts.pdf |

Background

418. In 2012, following a comprehensive audit of the methods used across EU countries, a number of areas for improvement were identified which Member States had to address by 2014. The UK National Accounts, consistent with Blue Book 2014, for publication in September 2014 would include improvements to methods and data to address these issues in respect to the UK.

Scope, methodology and data sources

419. To estimate illicit drugs production, a demand-side method is used. There are six drugs included which are all calculated separately and added together to create totals at the end of the process. Data on volumes is based on surveys by the Home Office and prices are taken from the United Nations' *World drug report*. Missing data is estimated using X-12-ARIMA modelling.⁽¹⁵⁷⁾
420. Prostitution is estimated using a supply-side method. Data on prostitution is not broken down based on types. Finally, extensive data gaps have been filled by using assumptions, recognising that this area of the economy is very difficult to measure. The assumptions about the supply parameters are based on expert studies and estimates by the Home Office. An expert study was also used to set 2004 as a benchmark for extrapolation. Assumptions about intermediate consumption are based on the Dutch experience (see country case: The Netherlands).

Data

421. In the period from 1997 to 2009, the impact on the UK GDP of including IEAs ranged between GBP 7 billion and GBP 11 billion. In 2009, it was GBP 9.7 billion, which accounted for about 0.7 % of GDP, with around GBP 5.3 billion attributable to prostitution and GBP 4.4 billion attributable to illegal drugs.

⁽¹⁵⁷⁾ Currently the ONS uses X13-ARIMA-SEATS.

Annex: Preparing estimates for the provision of money laundering services

A.1. Data sources underlying estimates of PMLS

422. One method of assessing the extent of money laundering would be to take official data on prosecutions, as presented e.g. in Eurostat's *Statistical working papers* ⁽¹⁵⁸⁾, or obtained from administrative and law enforcement records. Financial intelligence units in the Member States publish information on the value of incorrect declarations, as well as the results of checks and inspections (reporting) including the sums involved.
423. For example, Italy's financial intelligence unit (FIU) stated that in 2014 the total value of suspicious transactions reported to it was EUR 55.9 billion (some 3.5 % of GDP), down from EUR 62 billion in 2013 (some 3.9 % of GDP). ⁽¹⁵⁹⁾ The Netherlands' FIU declared 40 959 transactions suspicious for 2015 (compared with 29 382 for 2014). These accounted for almost EUR 2 billion (0.3 % of GDP). ⁽¹⁶⁰⁾
424. The Belgian financial intelligence processing unit (CTIF-CFI) analyses reported cases in terms of the three stages of money laundering (placement, layering and integration). ⁽¹⁶¹⁾
425. According to Eurostat, in 2008–2010 the financial intelligence units filed an average of 105 000 suspicious transaction reports per year.

Table 9: Number of reports by type ⁽¹⁶²⁾

| Types of Reports | 2008 | 2009 | 2010 |
|--------------------------------|---------|---------|---------|
| Suspicious transaction reports | 88 499 | 101 341 | 126 116 |
| Suspicious activity reports | 247 366 | 261 312 | 266 388 |
| Unusual transaction reports | 295 464 | 90 976 | 118 559 |

426. Credit institutions ⁽¹⁶³⁾ are the main source of suspicious transaction reports (STRs).
427. **Table 10** shows the distribution of the percentage of STRs, suspicious activity reports (SARs) and unusual transaction reports (UTRs) received from credit institutions ⁽¹⁶⁴⁾. Among obliged entities, credit institutions filed more than 75 % of all STRs.

⁽¹⁵⁸⁾ Eurostat Statistical working papers: *Money Laundering in Europe, 2013 edition*; Luxembourg 2013.

⁽¹⁵⁹⁾ Banca d'Italia, *Annual Report Financial Intelligence Unit*, Rome, May 2015, p. 27.

⁽¹⁶⁰⁾ Financial Intelligence Unit — the Netherlands, *Annual Report 2015*, p. 4.

⁽¹⁶¹⁾ http://www.ctif-cfi.be/website/images/EN/annual_report/20yearsctifcfi.pdf.

⁽¹⁶²⁾ Eurostat Statistical working papers: *Money Laundering, 2013 edition*, page 26.

⁽¹⁶³⁾ As defined in Article 1 of Directive 2000/12/EC as 'an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credits for its own account'.

⁽¹⁶⁴⁾ For definitions of STR, SAR and UTR see *Money Laundering in Europe, 2013 edition*, p. 23.

Table 10: Percentage of reports from credit institutions

| Percentage of suspicious transaction reports, suspicious activity reports and unusual transaction reports received from credit institutions | Number of Member States | | |
|---|-------------------------|------|------|
| | 2008 | 2009 | 2010 |
| Less than 25 % | 3 | 4 | 4 |
| 25-50 % | 2 | 4 | 2 |
| 51-75 % | 7 | 4 | 6 |
| More than 75 % | 14 | 12 | 10 |
| Total | 26 | 24 | 22 |

A.2. Customs services' official data on cross-border physical transportation of cash

428. According to a recent Europol strategic report, money laundering continues to rely strongly on traditional methods and mostly involves cash at some time, despite the rise of new technologies. The Europol study is based on an analysis of detected money laundering schemes. It finds that the first step in money laundering is often to get rid of cash by placing the proceeds of e.g. drug dealing in bank accounts or with small businesses, without arousing suspicion. Cash is also found to be used as a means to interrupt the audit trail, e.g. when the proceeds from online fraud are withdrawn from a bank account by a 'cash mule'.⁽¹⁶⁵⁾ The Financial Action Task Force (FATF) study concludes that money laundering usually encompasses cross-border transfers of funds and that the physical transport of cash plays an increasingly important role due to anti-money laundering measures in the financial system.⁽¹⁶⁶⁾ Both the FATF and Europol studies demonstrate the importance of cash for money laundering schemes.
429. Cash is typically involved at the placement stage of the money laundering process, but also plays a role at both the layering and integration stages. Almost all crime types make use of cash to facilitate money laundering, even if not all are readily cash-producing criminal businesses.
430. This may be because their criminal activities generate cash profits or because cash is used as an instrument to disguise the criminal origin of profits. Cash offers anonymous, untraceable transactions and immediate clearing. It is universally accepted. High-denomination notes enable large sums to be paid, moved and stored with minimum cost and detection risk. Money laundering through the physical transportation of cash enables the primary offender to conceal the illegitimate origins of the proceeds and to remove them from the jurisdiction in which the offence was committed.
431. The European Commission Directorate-General for Taxation and Customs Union (DG TAXUD) compiles the number of declarations made by Member States applying the Cash Control Regulation⁽¹⁶⁷⁾ and information on the number of incorrect cash declarations or findings as a result of customs controls at the EU's external borders (reporting).⁽¹⁶⁸⁾

Table 11: Value of cash declarations and recordings (million euros)

| | 2008 | 2009 | 2010 |
|---|--------|--------|--------|
| Value of cash declarations | 48,393 | 45,315 | 55,139 |
| Value of incorrect declarations or findings as a result of customs control (recordings) | 1,433 | 324 | 514 |

⁽¹⁶⁵⁾ Europol Financial Intelligence Group, *Why is cash still king? A strategic report on the use of cash by criminal groups as a facilitator for money laundering*, The Hague, July 2015.

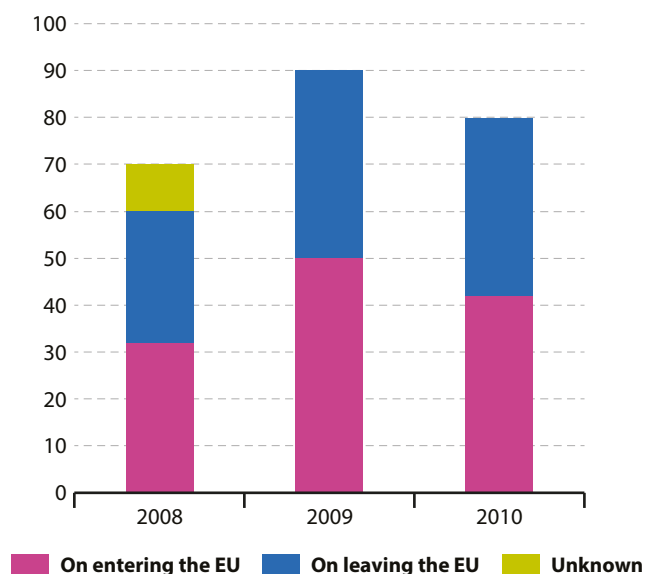
⁽¹⁶⁶⁾ Financial Action Task Force (2015). *Money laundering through the physical transportation of cash*.

⁽¹⁶⁷⁾ Regulation (EC) No 1889/2005 of the European Parliament and of the Council of 26 October 2005 on controls of cash entering or leaving the Community.

⁽¹⁶⁸⁾ Eurostat Statistical working papers, *Money laundering in Europe, 2013 edition*.

432. The European Commission Report on the effectiveness of EU cash controls in Member States showed that, between July 2007 and July 2009, natural persons entering or leaving the EU declared a total of around EUR 80 billion.⁽¹⁶⁹⁾ No figures were available for the amount of cash transferred between financial institutions. In the same period, cash detections (i.e. cash movements by natural persons that were not declared for some reason but instead were detected by customs or other authorities) accounted for EUR 1.6 billion. Estimates based on reports received by Europol show that EUR 1.5 billion in cash is detected and/or seized by EU Member State authorities each year.⁽¹⁷⁰⁾

Figure 12: Results of EU customs controls (in thousand euros)



A.3. Dark figure of money laundering

433. Since money laundering is a form of crime that tends to be discovered through investigation of other known crimes (in German, *Kontrollkriminalität*), the 'dark figure' for money laundering, i.e. the amount unknown to the authorities, might be substantial. Further analysis of transactions at national and EU level is needed to measure money laundering.⁽¹⁷¹⁾
434. Current views of money laundering focus mainly on the financial sector; the size of the non-financial sector is generally underestimated. Experts estimate a similar dark figure for the non-financial and financial sectors.
435. The figure is probably systematically underestimated for the following reasons:
- Some data are based on reports by organisations that do not have a reporting obligation.⁽¹⁷²⁾ These reporters largely show a lack of understanding and competence in identifying money laundering activities.

⁽¹⁶⁹⁾ Report from the Commission to the European Parliament and the Council on the application of Regulation (EC) No 1889/2005 of the European Parliament and of the Council of 26 October 2005 on controls of cash entering or leaving the Community pursuant to Article 10 of this Regulation, COM(2010) 429 final.

⁽¹⁷⁰⁾ Europol Financial Intelligence Group, *Why is cash still king? A strategic report on the use of cash by criminal groups as a facilitator for money laundering*, The Hague, July 2015.

⁽¹⁷¹⁾ See *Report from the Commission to the European Parliament and the Council on the application of Directive 2005/60/EC on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing*, COM(2012) 168 final, 11.04.2012.

⁽¹⁷²⁾ Article 2 of Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC (Text with EEA relevance), OJ L 141, 5.6.2015, p. 73.

- There is a lack of data on some obliged reporters, and on economic sectors with non-obliged reporters active in business mergers and acquisitions (*NACE section K Financial and insurance activities*), along with service industries (*NACE section I Accommodation and service activities*).

A.4. Estimated magnitude of illegal money underlying PMLS according to type of IEA

436. Estimates of the total volume of money laundering in Member States' financial and non-financial sectors, based on the gravity model, are presented in the ECOLEF study.⁽¹⁷³⁾ The common view (that risks related to money laundering are in particular high in countries with a high degree of organised criminal activity) is misleading, as a high volume of money laundering does not reflect the level of crime within a country so much as the strength of its economy.
437. Fraud and illegal drug trafficking are regarded as the two biggest sources of criminal profits by far. Research on money laundering includes estimates of the percentage laundered for a wide range of offences, and shows that the more common crimes, such as burglary and theft, which involve relatively small amounts of money per crime, do not lead to large amounts of money being laundered. By contrast, offences that net large amounts per crime, such as major fraud and drug trafficking, are believed to lead to high levels of laundering. A high percentage of the proceeds of crime is found mostly in types of crime often associated with transnational organised groups — the trafficking or manufacturing of illegal drugs or arms, large-scale fraud, illegal prostitution, counterfeiting (illegal copying) and trafficking of people.
438. In countries known for a high volume of illegal drug trafficking, research on trade misinvoicing tends to show large misinvoicing-related inflows as well as outflows. In fact, the inflows tend to be larger than the outflows, because money laundering requires a large infusion of cash domestically. For instance, financing large drug transactions typically requires a substantial injection of illegal capital. A similar exercise into trade-based misinvoicing to detect tell-tale signs of trade-based money laundering can be carried out for Member States of the European Union subject to actual and potential drug trafficking. Detailed transaction-level data should confirm large price outliers indicating a significant risk of trade-based money laundering.
439. As money laundering, by definition, involves converting illegal into legal funds, large changes in demand and short-term deposits in excess of those consistent with monetary fundamentals would seem suspect and provide another tell-tale sign of money laundering. For instance, if the real rate of interest is low, the opportunity cost of holding liquid bank deposits is high. There would seem to be no reason for a spike in such deposits. Another favourite channel for money laundering is the real estate sector; this may account for unusual spikes in the number and volume of transactions. In countries where the volume of illicit funds in circulation is high, a rising ratio of real estate prices to average income in middle- and high-income groups can be discerned.
440. Table 12 presents estimates of the percentage of laundered proceeds for a wide range of IEAs, based on Australian and Dutch research.⁽¹⁷⁴⁾

⁽¹⁷³⁾ Project 'ECOLEF' — *The economic and legal effectiveness of anti- money laundering and combating terrorist financing policy — Final report*, Utrecht University, 2013, p. 36.

⁽¹⁷⁴⁾ Walker, John et al. (2007), *The Extent of Money Laundering in and through Australia in 2004*, report for the Australian Financial Intelligence Unit AUSTRAC; Unger, B., Siegel, M., Ferwerda, J., de Kruijff, W., Busuioic, M., Wokke, K. and Rawlings, G. (2006), *The Amounts and the Effects of Money Laundering*, Amsterdam: Ministry of Finance, 2006.

Table 12: Estimates of the percentage of proceeds laundered, by crime type⁽¹⁷⁵⁾

| Crime type | Percentage of proceeds laundered | Crime type | Percentage of proceeds laundered |
|---|----------------------------------|--|----------------------------------|
| Drugs crime (generally) | 83 | Illegal immigration/people trafficking | 73 |
| Drugs (heroin, cocaine, XTC, cannabis) | 80 | Illegal workers | 10 |
| Drug manufacturing | 75-90 | Other crimes against the person | 2-5 |
| Drug trafficking | 75 | Theft (generally) | 62.5 |
| Dealing/trafficking in drugs | 20-30 | Fencing | 80 |
| Importing / exporting / manufacturing / growing drugs | 15-25 | Illegal copying | 80 |
| Computer crime | 80 | Fraud (generally) | 80 |
| Homicide | 93.3 | Illegal gambling | 80 |
| Prostitution | 80 | Arms trading/trafficking | 67.5 |
| Illegal prostitution | 74 | Burglary | 10 |
| | | Motor vehicle thefts | 2-5 |

441. Taking the available estimates of the proceeds of crime in EU Member States as the starting point, we have applied the most commonly accepted estimates of the proportion that would be laundered. This gives us estimates of the total amounts of money available for laundering per year worldwide, as shown in Table 13.

442. The estimates are based on the gravity model for money laundering, described in detail in the ECOLEF Report⁽¹⁷⁶⁾. The gravity model assumes that the percentage of criminal proceeds that one country sends to another depends on the recipient country's attractiveness for laundering, its GDP per capita and the geographical, social and cultural distance between the two countries. A strict anti-money laundering policy, a very high degree of corruption and a high degree of political conflicts will deter launderers, while big financial markets and a high degree of bank secrecy will attract them. The higher a country's GDP per capita, the richer it is, the more money for laundering it will attract, because money can more easily be hidden in a large and wealthy economy than on a poor island.

443. In addition, the distance between resident and non-resident criminals is important: social and cultural as well as geographical distance. If two countries speak the same language, if they share a common colonial background and if they are top trading partners for each other, they have more common links and hence less 'distance' to each other, than if they do not have these joint experiences. The closer countries are to each other, the lower the distance between them, the more laundering will take place, i.e. more money will be sent to them for laundering purposes.

Table 13: Estimates of money available for laundering in 2009, by Member State of origin⁽¹⁷⁷⁾

| Member State | Proceeds of crime (EUR million) | Money available for laundering (as percentage of GDP) | Member State | Proceeds of crime (EUR million) | Money available for laundering (as percentage of GDP) |
|----------------|---------------------------------|---|--------------|---------------------------------|---|
| Austria | 3 128 | 1.18 | Latvia | 413 | 2.27 |
| Belgium | 3 727 | 1.14 | Lithuania | 344 | 1.33 |
| Bulgaria | 1 469 | 4.50 | Luxembourg | 393 | 1.10 |
| Cyprus | 217 | 1.33 | Malta | 82 | 1.49 |
| Czech Republic | 1 706 | 1.27 | Netherlands | 6 048 | 1.10 |
| Denmark | 2 747 | 1.27 | Poland | 3 696 | 1.24 |
| Italy | 20 773 | 1.42 | | | |

⁽¹⁷⁵⁾ Project 'ECOLEF' — The economic and legal effectiveness of anti-money laundering and combating terrorist financing policy — Final report, Utrecht University, 2013, pp. 38.

⁽¹⁷⁶⁾ Ibid, pp. 34-57.

⁽¹⁷⁷⁾ Project 'ECOLEF' — The economic and legal effectiveness of anti-money laundering and combating terrorist financing policy — Final report, Utrecht University, 2013, p. 39.

| Member State | Proceeds of crime (EUR million) | Money available for laundering (as percentage of GDP) | Member State | Proceeds of crime (EUR million) | Money available for laundering (as percentage of GDP) |
|--------------|---------------------------------|---|----------------|---------------------------------|---|
| Estonia | 392 | 2.96 | Portugal | 2 009 | 1.27 |
| Finland | 1 971 | 1.20 | Romania | 1 552 | 1.39 |
| France | 21 492 | 1.16 | Slovakia | 792 | 1.30 |
| Germany | 29 381 | 1.27 | Slovenia | 477 | 1.40 |
| Greece | 2 572 | 1.12 | Spain | 12 988 | 1.28 |
| Hungary | 1 132 | 1.26 | Sweden | 3 258 | 1.16 |
| Ireland | 2 651 | 1.68 | United Kingdom | 24 998 | 1.64 |
| Italy | 20 773 | 1.42 | | | |

444. Table 14: EU27 by estimated threat in 2009 presents estimates of the amounts of proceeds of crime that could pose a money laundering threat for each EU Member State.

Table 14: EU27 by estimated threat in 2009 ⁽¹⁷⁸⁾

| Rank | Member State | Threat (EUR billion) |
|------|-----------------|----------------------|
| 1 | United Kingdom | 282.0 |
| 2 | France | 151.3 |
| 3 | Belgium | 119.89 |
| 4 | Germany | 108.87 |
| 5 | The Netherlands | 94.12 |
| 6 | Luxembourg | 93.76 |
| 7 | Austria | 88.81 |
| 8 | Italy | 73.91 |
| 9 | Denmark | 59.17 |
| 10 | Spain | 56.31 |
| 11 | Ireland | 54.43 |
| 12 | Poland | 53.92 |
| 13 | Czech Republic | 51.19 |
| 14 | Finland | 45.1 |
| 15 | Portugal | 43.02 |
| 16 | Latvia | 42.64 |
| 17 | Estonia | 40.07 |
| 18 | Slovenia | 35.11 |
| 19 | Sweden | 26.21 |
| 20 | Slovakia | 23.56 |
| 21 | Hungary | 19.95 |
| 22 | Cyprus | 19.09 |
| 23 | Bulgaria | 18.51 |
| 24 | Greece | 16.59 |
| 25 | Romania | 14.08 |
| 26 | Lithuania | 12.87 |
| 27 | Malta | 8.33 |

⁽¹⁷⁸⁾ Project 'ECOLEF' — The economic and legal effectiveness of anti-money laundering and combating terrorist financing policy — Final report, Utrecht University, 2013, page 43.

A.5. Treatment of PMLS in national accounts and the balance of payments

445. Money may be laundered in a way that involves legitimate transactions, and service fees, from the viewpoint of institutional units in *S.122-S.123 Other monetary financial institutions* and *S.124 Non-MMF investment funds*. Often, players such as *Other monetary financial institutions* will be unaware of their involvement in money laundering, and the fees that banks charge for transferring money between different accounts should be included in the system of national accounts together with the fees from legal transactions. These institutional units are regularly covered in business registers and approached in censuses or surveys by the national statistical compilers: their output, intermediate consumption and value added are recorded in the accounts and are consequently included within the production boundary of national accounts.
446. In view of cross-border flows of illicit money facilitated outside institutional sectors *Other monetary financial institutions* and *Non-MMF investment funds*, illegal money is probably not covered by the balance of payments accounting framework and thus such flows are difficult to estimate.
447. If *S.11 Non-financial corporations* deliberately misreport the value of a commercial transaction on an invoice submitted to customs, then export under-invoicing and import over-invoicing lead to outflows, i.e. money is shifted abroad. In the case of exports, the under-invoiced amount passes through the banking channel but the shortfall is deposited in the exporter's external account. The original transaction is very much a part of the formal banking system. But the country has lost foreign exchange and the tax on profits on the export portion not reported by the company. Similarly, on the import over-invoicing side, importers overpay the foreign exporter. Once again, the official banking channel is used to transfer funds abroad in an illegal manner.
448. Analysis of net errors and omissions may detect cross-border flows related to illicit money. However, it is important to note that net errors and omissions also result in practice from imperfections in source data and compilation issues. They cannot be solely considered an indicator of illegal transactions; more analysis is needed. Whenever a transaction is included on the current account of the balance of payments, it could potentially increase errors and omissions if the corresponding transaction is not recorded in the financial account. So compilers should also consider how payment is made in order to clarify whether or not the financial transaction is included in the sources or whether an estimate should be made, e.g. a suitcase full of money used for bribery is most likely not captured by traditional sources, whereas a credit card transaction used for illegal gambling might be.
449. In countries with significant illegal flows, net errors and omissions would tend to fluctuate excessively, depending upon the relative preponderance of illegal inflows or outflows from one year to the next. The size of net errors and omissions relative to gross goods trade as recorded in the balance of payments would tend to be higher than that of countries with comparable levels of trade. Large net errors and omissions simply reflect the fact that there is a significant gap between recorded current and financial account transactions, which are inconsistent within the balance of payments framework.
450. Member States are invited to launch surveys in order to prepare estimates of illegal cross-border flows. Unger discusses a number of methods⁽¹⁷⁹⁾. Traditional approaches used have been based on field and case studies. Another way of estimating is to carry out surveys and interviews with business people and experts from the police and government departments and ministries. A further method of estimating money-laundering is to analyse suspicious or unusual transactions reported to financial intelligence units (FIUs), which have been established in the EU. In addition, a number of top-down approaches have been proposed in the literature.
451. In cases where the primary offenders use syndicated professional money launderers, it is necessary to draw up estimates for *money laundering services*. The *OECD Handbook on measuring the non-observed economy*

⁽¹⁷⁹⁾ Unger, Brigitte/Siegel, Melissa/Ferwerda, Joras/de Kruijf, Wouter/Busuioic, Madalina/Wokke, Kristen/Rawlings, Greg: *The Amounts and the Effects of Money Laundering, Report for the Ministry of Finance*, February 16, Amsterdam 2006; Unger, Brigitte: *Money Laundering – A Newly Emerging Topic on the International Agenda*, in: *Review of Law and Economics*, 2009.

(paragraph 9.26) states that ‘insofar as there is a difference between the value of the illegal cash and the value of the legalised cash, this should be looked upon as a provision of services.’⁽¹⁸⁰⁾ This recommendation assumes that an illegal service is provided that is not captured elsewhere in the system. As a consequence, the money laundering service provided by complicit institutional units should be recorded as a service fee/ commission being paid by the offender during any of the money laundering stages; this equals the output of the syndicated money launderers.

452. Information about the value of money laundering services is scattered and anecdotal. Experienced investigators from Europol and the US Department for Homeland Security refer to a *service fee of 10 % for money laundering services*⁽¹⁸¹⁾ which might give an initial indication.⁽¹⁸²⁾ The price paid for specific PMLS apparently is partly a function of the predicate crime and the volume of funds that needs to be laundered. While legitimate financial transactions generate lower per-unit costs the larger they are, the opposite is true for money laundering — the risk of detection is a major cost, and that risk will rise with the amount being laundered.
453. *P.2 Intermediate consumption* by syndicated money launderers covers fees paid to government and registered agents, rental of offices, wages paid to local workers, airline tickets for couriers, transportation costs, utilities and other ancillary services.
454. *B.1g Gross value added* generated by syndicated money launderers is derived from *P.1 Output* less *P.2 Intermediate consumption*.

A.5.1. PMLS during placement, layering and integration

455. As discussed above, primary offenders need to launder the proceeds of illegal economic activities, they may do this via stand-alone money laundering (un-syndicated money laundering) or by using complicit professional launderers (syndicated money laundering).
456. In practice, this involves all three stages of the laundering process, but there might be cases where the layering and integration stages are dominant, or where only the placement and integration stages are observed, with the layering stage being absent.
457. There are salient methods by which primary offenders and complicit institutional units move money for the purpose of disguising its illegal origins and integrating it into the formal economy.
458. Placement and layering are mainly done via:
- other monetary financial institutions and non-MMF investment funds;
 - physical movement of cash.

⁽¹⁸⁰⁾ OECD et al.: *Measuring the non-observed economy — a handbook*, Paris, 2002.

⁽¹⁸¹⁾ Europol, Meeting of the Eurostat Task Force IEA on 23 March 2016 in Luxembourg; for empirical evidence, see <http://www.bbc.com/news/world-asia-india-38011407>.

⁽¹⁸²⁾ So that national compilers can verify the commission (fee) over time and predicate crime, priority should be given to official information issued by government institutions involved in the field. The contribution of experts from outside of the statistical system who are involved in combating and observing illegal economic activities could be crucial in the development process and for the credibility of estimates of money laundering. The market commission price charged by someone engaged in the business of laundering money should also reflect, to some extent, the perceived street risk of getting caught by law enforcement agencies. Professional money launderers offer criminal groups a service, and the market price of their service is subject to variations caused by changes in supply and demand. Effective law enforcement efforts against professional money launderers should lower the total supply of those offering money laundering services both by putting current service providers in jail and by reducing the number of providers willing to enter the business, since the risk of going to jail increases. Since the commission rate reflects a market valuation of the risk to the launderers, a marked decline in the commission rate charged in a given locale could indicate that the launderers do not fear detection and capture. Commissions are the fees the launderers charge to launder illegal proceeds. These commissions, typically negotiated, are an amount paid as a percentage of the total amount laundered and the underlying crime. It is necessary to carry out permanent investigation to monitor the commission (fee) rate.

Box 19: Stages of money laundering processes: placement

The placement stage involves physical movement of currency or other funds derived from IEAs to a place or into a form that is less suspicious to law enforcement authorities and more convenient to the criminal. Placement is the placing of illicit funds in legitimate accounts in the formal financial system. It may take the form of breaking large sums of illicitly earned money into smaller amounts ('smurfing') in order to be able to circumvent anti-money laundering laws, which usually set a threshold for deposits in the banking system, above which documentation of the source of the money is needed. Alternative methods of depositing criminal proceeds in the financial system are currency smuggling, changing currency, transportation of cash or traveller cheques, and gambling. In addition, cash could be switched into other valuables like trade goods, diamonds, etc. It could also be exchanged for other currencies or larger denominations and/or split up into smaller sums which allow easy transportation by cash couriers. The cash or other valuables can be transported abroad, away from the country where the crime was committed, to the criminal's country of residence or to a specific country where cash can be easily deposited or invested. Transportation may be by car, plane (passenger or cargo plane) or by using an underground banking system (e.g. *hawala*). For all of these acts, criminals can use third parties, either individuals or corporations. Money derived from fraud, like tax fraud or investment fraud, could easily be money held in a bank account and capable of being exchanged electronically. Not all criminal proceeds take the form of cash or even money. Stolen goods can be exchanged for other valuables. The problem here concerns the ways in which criminals can place large quantities of money in financial systems without being detected and without the influx of a large amount of capital delivered in cash raising concerns and leading to placement being spotted.

Box 20: Stages of money laundering processes: layering

Layering is done with the goal of concealing the criminal origin of the proceeds, i.e. moving, dispersing or disguising illegal funds or assets to conceal their true origin. The launderer further separates the illicit proceeds from the illegal source by this process of layering, which occurs through a series of multiple complex financial transactions which, in their frequency, volume and complexity resemble legitimate financial transactions. This is intended to obscure the audit trail and hide the proceeds. This process then creates the conditions in which dealers can introduce the layered funds into the legal economy. Money can be transferred and split frequently between bank accounts, countries, individuals and/or corporations. Examples are fictitious sales and purchases, shell companies, wire transfers, splitting and merging of bank accounts and using underground banking. At the layering stage, the launderer might choose an offshore financial centre, a large regional business centre, or a world banking centre — any location that provides adequate financial or business infrastructure. At that stage, the laundered funds may only transit bank accounts at various locations where this can be done without leaving traces of their source or ultimate destination.

459. Integration is done via:

- financial corporations except monetary financial institutions and insurance corporations and pension funds (the main route);
- non-financial corporations — the Financial Action Task Force (FATF)⁽¹⁸³⁾ observed a significant shift in laundering activities from financial corporations to non-financial corporations;
- offshore financial centres;
- trade-based money laundering, i.e. the physical movement of goods through the trade system.⁽¹⁸⁴⁾

⁽¹⁸³⁾ FATF report: *money laundering and terrorist financing vulnerabilities of legal professionals*, June 2013.

⁽¹⁸⁴⁾ For the purpose of this *Handbook*, trade-based money laundering is defined as the process of disguising the proceeds of crime and moving value through the use of trade transactions in an attempt to legitimise their illicit origins. In practice, this can be achieved through the misrepresentation of the price, quantity or quality of imports or exports. Moreover, trade-based money laundering techniques vary in complexity and are frequently used in combination with other money laundering techniques to further obscure the money trail. In many cases, this can also involve abuse of the financial system through fraudulent transactions involving a range of money transmission instruments, such as wire transfers. The basic techniques of trade-based money laundering include: over- and under-invoicing of goods and services; multiple invoicing of goods and services; over- and under-shipments of goods and services; and falsely described goods and services. All of these techniques are not necessarily in use in every country.

Box 21: Stages of money laundering processes: integration

At the integration stage, illegal proceeds are converted into apparently legitimate business earnings through normal financial or commercial operations. The funds or assets appear by now to have been legitimately acquired. Alternatively, money could be claimed to have been earned in apparently legitimate, mainly cash-intensive, transactions. Money laundering techniques range in their complexity from simple wire transfers to banks in high-secrecy jurisdictions to schemes involving shell banks. The process of inserting funds into the legal economy moves away from financial transfers and into the realm of real or financial assets or purchases. It is accomplished in such a way that the funds appear to be derived from a legitimate source. Money launderers might choose to invest laundered funds in still other locations if they were generated in unstable economies or locations offering limited investment opportunities. Once the funds are layered and distanced from their origins, they are made available to criminals to use and control as apparently legitimate funds. The laundered funds are made available for activities such as investment in legitimate or illegitimate businesses, or spent to promote the criminal's lifestyle. At this stage, the illegal money has achieved the appearance of legitimacy. The round-tripping of illicit funds transferred abroad at some time in the past as legitimate foreign direct investment in the current period represents an elaborate money laundering exercise.

460. The institutional units involved in placement, layering and integration, in related productive and distributive transactions in products, and in transactions related to financial assets or liabilities are presented below.

| Box 22: Characteristics of the money laundering scheme: un-syndicated money laundering | | | | | |
|---|--|--|---|---|---|
| Institutional unit | Source of illegal money | Placement | Layering | Integration (justification and payback) | Institutional unit |
| Primary offender | Productive transactions | Distributive transactions | Financial transactions/ balancing items | Legitimate business partners of primary offender | |
| | P:3 Final consumption expenditure; | | | B:8g Saving, gross; | S:11 Non-financial corporations; |
| | P:5 gross capital formation; | | | F:2 Currency and deposits; | S:122 Deposit-taking corporations except the central bank; |
| | P:51g GFCF (real estate); | | | F:3 Debt securities; | S:123 Money Market funds; |
| | P:53 Acquisitions less disposals of valuables (gold/antiques/arts); | | | F:4 Loans; | S:124 Non-MMF investment funds; |
| S:14 Households unincorporated enterprises | P:1; P:6: Production and sales of illegal goods and services (drugs, prostitution, smuggling of tobacco and alcohol, bribery, fencing, infringement of copyright, illegal facilitation of migration, illicit firearms trafficking) | D:4 Property income; D:7 Other current transfers | F:5 Equity and investment fund shares or units; | | S:125 Other financial intermediaries, except insurance corporations and pension funds; Specialized financial vehicles; |
| | | | | | S:126 Financial auxiliaries: Money remitters, currency dealers, issuers of stored value and monetary instruments, shell companies; |
| | | | | | S:127 Captive financial institutions and money lenders: brass plate companies established by professional gatekeepers (e.g. lawyers); |
| | | | | | S:2 Rest of the world: Offshore financial centres |

Box 23: Characteristics of the money laundering scheme: syndicated money laundering

| Institutional unit | Source of illegal money | Placement | Layering | Integration (Justification and payback) | | |
|--|--|--|---|---|--|--|
| Primary offender | Productive transactions | Productive transactions | Distributive transactions | Productive transactions | Financial transactions/ Balancing items | Legitimate business partners |
| S.14 Households unincorporated enterprises | P.1; P.6: Production and sales of illegal goods and services (drugs, prostitution, smuggling of tobacco and alcohol, bribery, fencing, infringement of copyright, illegal facilitation of migration, illicit firearms trafficking) | Money laundering commission/fee; P.2, P.3, P.7: Legitimate but fictitious goods and services | D.4 Property income; D.7 Other current transfers; <i>BPM6</i> §1.1.106 Other investment income | S.126 Financial auxiliaries: shell companies; S.127 Captive financial institutions and money lenders: brass plate companies S.2 Rest of the world: Offshore financial centers | S.11 Professional gatekeepers S.125 Other financial intermediaries: Specialized financial vehicles; | |
| | P.2, P.3, P.7: Legitimate but fictitious goods and services | | D.4 Property income; D.7 Other current transfers; <i>BPM6</i> §1.1.106 Other investment income | P.5 Gross capital formation; F.2 Currency and deposits; F.3 Debt securities; F.4 Loans; F.5 Equity and investment fund shares or units; | B.8g Saving, gross; | S.125 Special financial vehicles, S.126 shell companies; |
| | <i>BPM6</i> §1.2.52 Miscellaneous current transfer | | P.51g GFCF (real estate); P.53 Acquisitions less disposals of valuables (gold/antiques/arts); P.7 Imports of goods and services | S.2 Offshore financial centres | S.127 brass plate companies; | |

A.5.2. Placement and layering via other monetary financial institutions

461. In the initial — or placement — stage of money laundering, the primary offender introduces illegal profits into the financial system either directly (in stand-alone or un-syndicated money laundering) or with complicit institutional units (in syndicated money laundering). This may be done by breaking up large amounts of cash into less conspicuous smaller sums that are then deposited directly into a bank account, or by purchasing a series of monetary instruments that are then collected and deposited into accounts at another location.
462. After the funds have entered the financial system, the second stage — layering — begins. The launderer engages in a series of conversions or movements of the funds to distance them from their source. The funds might be routed through the purchase and sale of investment instruments, or the launderer might simply wire the funds through a series of accounts at various banks across the globe. This use of widely scattered accounts for laundering is especially prevalent in jurisdictions that do not cooperate on anti-money laundering investigations. In some instances, the launderer might disguise the transfers as payment for goods or services, thus giving them a legitimate appearance; this is referred to as trade-based money laundering.
463. One means of layering through trade-based money laundering that is particularly complex and extremely difficult to trace involves 'round-tripping' illegal funds held abroad as legitimate foreign direct investment into an economy. The process involves the cross-border transfer of illegal funds through trade mis-invoicing, depositing the funds in a tax haven, and repatriating the funds as legitimate equity investment from a subsidiary in that tax haven to the parent company located in the source country which exported the illegal funds. The source country incurs a double loss — once on the way out, when no taxes are paid on the funds moved, and again when advantages are typically conferred on foreign direct investment. Some statistical evidence on round-tripping of foreign direct investment can be discerned through the IMF's Coordinated Direct Investment Survey (CDIS). For instance, in 2015, the FDI investment position of the British Virgin Islands (with a GDP of around USD 1 billion) vis-à-vis mainland China stood at around USD 350 billion. Similarly, the inward FDI investment position of Mauritius vis-à-vis India stood at around USD 60 billion that year.
464. Having successfully placed and layered criminal proceeds, the (complicit) launderer then moves the funds to the third stage — integration — in which they re-enter the legitimate economy. The (complicit) launderer might choose to invest the funds in real estate, luxury assets or business ventures.
465. Transactions in the financial account include acquisition and disposal of financial assets and liabilities unrelated to settlement of any current or capital account transaction. They are regularly reported at the time of the first cross-border transfer. Funds are then no longer reported for accounting, tax or statistical purposes. This may happen, e.g. by means of fictitious loans to companies that subsequently go bankrupt, or fictitious foreign settlements with other foreign countries. These funds are then invested in other (undeclared) financial instruments, like portfolio securities. The influence of these forms of cross-border transactions on net errors and omissions in the balance of payments depends on the characteristics of the data collection system used to compile such statistics.
466. Placement, layering and integration of illegal money into financial and non-financial assets can be also done by obtaining *F.4 Loans*, which are repaid using lump sum cash payments or smaller structured cash amounts. Transactions related to *F.4 Loans* may attract less scrutiny than significant cash activity. As the majority of Member States compile data on cross-border loans based on surveys, there might be a risk that *F.4 Loans* obtained from non-resident counterparts are underestimated. Estimates should be recorded in the category *Other investments*.

A.5.3. Placement and layering via physical transportation of cash (F.2 Currency and deposits)

467. There is little question that cash plays a starring role in a broad range of criminal activities, including drug trafficking, racketeering, extortion, corruption of public officials, human trafficking and, of course, money laundering.⁽¹⁸⁵⁾ Cash is still king, offering anonymity and real-time clearing of transactions at every level of a criminal operation. Illegal economic activities are overwhelmingly cash-based. One of the prevalent methods used by criminals to launder profits remains physical cash smuggling. The standard way in which non-residents acquire cash (F.2 Currency and deposits) without declaring it is by transporting it across the national border, i.e. smugglers physically cross the border.⁽¹⁸⁶⁾ Some jurisdictions have observed a marked increase in demand for high-denomination banknotes in their territory, which seems to be inconsistent with the progressive change in public preference to other means of payment. The importance of cash — particularly at the placement stage — has been underlined in a number of Europol reports.⁽¹⁸⁷⁾ Laundering methods include the acquisition of property and assets, and the use of legitimate and quasi-legitimate businesses with a high turnover in cash (including restaurants, nightclubs, taxi firms, car sales, etc.).

Box 24: Europol case study on money laundering via physical transport of cash

The movement of vast amounts of cash from illicit sources remains a matter of concern for law enforcement and it is still a favourite method of repatriating criminal proceeds. Couriers are employed to transport sums by car, coach, train or airplane. Because of its bulk and weight, criminals prefer to transporting carry high-denomination bank notes, for example the 100-euro, 200-euro and 100-dollar (US) and especially the 500-euro banknote. These large denominations enable criminals to transport huge sums of money in small volumes which are easier to conceal. To overcome the challenge of moving cash in bulk, organised crime may also use large containers or storage compartments in vehicles, or split values up among many couriers. Europol has seen a number of cases where money was laundered through the wholesale gold industry because, like cash, gold is a bearer instrument, which makes it more difficult to identify the beneficial owner of the asset. Europol has also been made aware of instances of gold ‘swallowers’, who swallow their consignments — small gold bars — to avoid detection (a modus operandi previously seen with drugs mules and, subsequently, cash mules). More recently, Organised Crime Groups have converted cash proceeds of crime through gold purchases. The gold is not subject to declarations and therefore can be moved outside of the EU with greater ease for subsequent sale after which proceeds appear to be from legitimate gold trade.

It is important to emphasise that the cash is not always ‘smuggled’. Increasingly, couriers may in fact choose to declare the sum, concealing its illegal nature rather than using some method to conceal the money itself. Declaring the sum to the competent authorities in the country of origin would be a first step to presenting it as lawful in the country of destination. Europol has, for example, identified very unusual movements of money originating outside the EU transiting several EU Member States: between March 2008 and April 2012 over USD 417 million and EUR 9 million were declared. By this means, criminals can make use of differences in powers conferred on customs and border officials across different jurisdictions; officials may not have the power to seize suspicious sums of money and launch an investigation without knowing its precise origin.

468. The total value of cash in circulation in the world was estimated in 2009 to exceed USD 4 trillion. The US Federal Reserve estimates that US dollar notes in circulation have a total value of USD 1 380 billion,⁽¹⁸⁸⁾ partly held outside the US (35 %).

⁽¹⁸⁵⁾ Rogoff, Kenneth S., *The Curse of Cash*, Princeton University Press, 2016, p. 2.

⁽¹⁸⁶⁾ Before the introduction of the euro, when foreign banks requested foreign currency in exchange for (national) banknotes, this meant a worsening of the external position of the central bank (reduction of foreign currency stocks) was recorded. It was not offset by the corresponding creation of foreign assets; negative errors and omissions were consequently recorded.

⁽¹⁸⁷⁾ Europol Financial Intelligence Group, *Why is cash still king? A strategic report on the use of cash by criminal groups as a facilitator for money laundering*, The Hague, July 2015.

⁽¹⁸⁸⁾ http://www.federalreserve.gov/paymentsystems/coin_currircvolume.htm and http://www.federalreserve.gov/paymentsystems/coin_currircvalue.htm.

469. Data provided by European Central Bank (ECB) and the US Federal Reserve System point in the same direction, although they give only an indication of an order of magnitude of the legal circulation of banknotes, as they represent only two of the top five currencies in the world. In 2015, there were around 18.995 billion euro banknotes in circulation with a total value of EUR 1 083 billion.⁽¹⁸⁹⁾ The use of euro banknotes outside of the euro area cannot be estimated with exact precision, but the ECB indicates that, by value, between 20–25 % (EUR 192–240 billion) of euro banknotes in circulation are held by institutional units outside the euro area, with the highest use in the Western Balkans and significant amounts in Russia and in northern African countries. The ECB estimates that at the end of 2016 residents outside the euro area held approximately EUR 341 billion in euro banknotes.⁽¹⁹⁰⁾
470. Deutsche Bundesbank indicates that banknotes used for transactional purposes account for only a small percentage — between 10–15 % of the total volume of banknotes in circulation.⁽¹⁹¹⁾ The ECB suggests that only one third of euro currency in circulation is used for payment in the euro area, while 40 % of it is held as a store of value;⁽¹⁹²⁾ the Bundesbank estimates that between 10–30 % is used as a store of value.⁽¹⁹³⁾
471. A recent study by the Bank of England indicates that *'no more than half of Bank of England notes in circulation are likely to be held for use within the domestic economy for legitimate purposes. The remainder is likely to be held overseas or for use in the shadow economy'*.⁽¹⁹⁴⁾ According to Professor Rogoff, the evidence suggests that, in most countries, more than 50 % of currency is used to facilitate anonymous transactions for tax evasion or other illegal activities.⁽¹⁹⁵⁾
472. As presented above, cash declarations totalled EUR 80 billion. Cash detections (i.e. cash movements by natural persons that were not declared for some reason, but instead were detected by customs or other authorities) totalled EUR 1.6 billion.⁽¹⁹⁶⁾ Europol estimates are similar: EUR 1.5 billion in cash detected and/or seized by EU Member States' authorities each year.⁽¹⁹⁷⁾ It is likely that the actual amount of cash derived from criminal activities transported across EU borders is higher; however, no reliable estimates for this trade currently exist. This suggests a minimum figure for money laundering-related cash detection in the EU of 1 % each year.
473. Cash can be used either as a medium of exchange for transactional purposes or as a store of value by residents, non-residents, and for illegal economic activities. Apart from those purposes, negative interest rates could encourage households (S.14) to retain some of their savings in cash. The share of euro banknotes used for domestic transactional purposes, domestic hoarding, circulation outside the euro area and declared at borders accounts for approximately 50–90 %. A similar share applies outside the euro area to Member States' national currency banknotes. Starting from the observed and explainable cash use of 50–90 % of total cash issued and the overall demand for cash, further research is needed in particular to explain the gap and the sustained demand for high-denomination banknotes.⁽¹⁹⁸⁾ Because of its higher rates of return, it is likely that the velocity of illicit money underlying financial transactions linked to IEAs is higher than the velocity of cash used for transactional purposes in the formal sector. Large denomination notes, which account for 80–90 % of the global hard currency supply, largely circulate in the underground economy, helping to facilitate crime and corruption on a big scale.⁽¹⁹⁹⁾

⁽¹⁸⁹⁾ <http://sdw.ecb.europa.eu/reports.do?node=1000004111> and <http://sdw.ecb.europa.eu/reports.do?node=1000004112>.

⁽¹⁹⁰⁾ ECB, *Estimation of euro currency in circulation outside the euro area*, page 5. http://www.ecb.europa.eu/pub/pdf/other/estimating_eur_in_circulation_outside_the_euro_area-201704.en.pdf.

⁽¹⁹¹⁾ Deutsche Bundesbank, *Monthly Report*, January 2011, p. 29.

⁽¹⁹²⁾ <https://www.ecb.europa.eu/press/key/date/2014/html/sp140519.en.html>, download on 22 November 2016 at 11.19.

⁽¹⁹³⁾ Deutsche Bundesbank (2011), *Monthly Report*, January 2011, p. 25.

⁽¹⁹⁴⁾ Bank of England, Quarterly Bulletin 2015Q3, *How has cash usage evolved in recent decades? What might drive demand in the future?*

⁽¹⁹⁵⁾ Rogoff, Kenneth S., *Costs and Benefits to Phasing out Paper Currency*, in *NBER Macroeconomics Annual 2014, Volume 29*, Parker and Woodford, 2015.

⁽¹⁹⁶⁾ Report from the Commission to the European Parliament and the Council on the application of Regulation (EC) No 1889/2005 of the European Parliament and of the Council of 26 October 2005 on controls of cash entering or leaving the Community pursuant to Article 10 of this Regulation.

⁽¹⁹⁷⁾ Europol Financial Intelligence Group, *Why is cash still king? A strategic report on the use of cash by criminal groups as a facilitator for money laundering*, The Hague, July 2015.

⁽¹⁹⁸⁾ In this regard, high-denomination banknotes create a particular vulnerability. According to the ECB, the 500-euro banknote, with an overall circulation value of EUR 290 billion, alone accounted for more than 30 % of the value of all banknotes in circulation, despite the fact that such a large banknote is not a common means of payment for general consumers and businesses. Surveys suggest that high-denomination notes are held by a very small minority of the population and are infrequently used. In May 2016, the ECB decided to discontinue production and issuance of the 500-euro banknote around the end of 2018. Bundesbank analysis suggests that over 70 % of the volume of 500-euro banknotes issued in Germany between 2002 and 2009 went overseas. In May 2010, the United Kingdom banned banks and currency exchange offices from accepting and distributing the 500-euro banknote due to their almost exclusive use to facilitate illegal economic activities.

⁽¹⁹⁹⁾ Rogoff, Kenneth S., *The Curse of Cash*, Princeton University Press, 2016, page 217.

474. In order to address the issue of transactional holdings of cash related to IEAs, national statistical compilers should prepare adjustments in the financial accounts for transactions in financial assets/financial liabilities.
475. The starting point is the statistical discrepancy (difference) between *B.9 Net lending/net borrowing* and *B.9F Net financial transactions for S.2 Rest of the world*, which is equivalent to the net errors and omissions item appearing in balance of payments statistics.
476. Recording banknotes in circulation by considering illicit cash is likely to reduce to errors and omissions. In addition, the recording and presentation of possible misallocation of assets and liabilities among the institutional sectors (domestic sectors, *S.121 Central bank* and *S.2 Rest of the world*) could be improved.

A.6. Integration of the proceeds of IEAs into the real economy

477. This section examines the extent of money laundering in non-financial sectors and the risk of money laundering in a range of subsectors. According to experts, the risk of money laundering is highest if goods and services meet as many as possible of the following criteria:⁽²⁰⁰⁾
- they have the advantages of a currency: easy to convert and stable;
 - they are inconspicuous when converted in large amounts or large values (both buying and selling);
 - the transaction amounts for acquisition are potentially high (as in real estate or art);
 - the returns are potentially significantly above average; and
 - there is scope for high cash transactions (as in the real estate sector, hotels and restaurants, import and export businesses).
478. The non-financial sector of the formal economy is important for the integration stage, particularly:
- professional gatekeepers (e.g. lawyers, notaries accountants, consultants, property developers, architects);
 - traders in goods (dealers in precious stones and metals, and in high-end objects of art and antiques);
 - the cash-intensive service sector;
 - organisers and retailers of online gambling;
 - real estate; and
 - legitimate business structures.

A.6.1. Layering and integration via non-financial corporations

479. Some parts of money laundering activities may be included implicitly in reported data from the official financial sector. Complicit professional launderers may over-report legal activities in an attempt to legitimise income from the provision of money laundering services. Professional gatekeepers engaging in money laundering operations register as a legal activity for tax purposes, and this affects the grossing-up factors for surveys of legal activities. Non-recording of money laundering activities may occur due to:
- the statistical system's inability to develop and maintain a comprehensive statistical register of business units involved in syndicated money laundering,
 - deliberate non-registration by units, or
 - misreporting and underreporting by the units covered in the surveys.
480. Depending on the money laundering model, estimates are considered necessary to address underreporting/non-reporting of *P.1. Output* for the economic activities discussed below.

⁽²⁰⁰⁾ Professor Dr Kai Bussmann, *Dunkelfeldstudie über den Umfang der Geldwäsche in Deutschland und über die Geldwäscherisiken in einzelnen Wirtschaftssektoren*, Economic Crime Research Centre, Martin-Luther-University Halle-Wittenberg, February 2016.

A.6.2. Professional gatekeepers

481. Professional gatekeepers (*S.11 Non-financial corporations*) provide a variety of legitimate but fictitious services to the primary offender. These services could be accounting, legal, marketing, public relations and similar services for which the primary offender (*S.14 Household*) is billed even if no services are rendered; all that is needed is a contract and the invoices justifying the payments. The professional gatekeeper may operate a brass plate company (*S.127 Captive financial corporation*).
482. Over time, money laundering methods and techniques have become increasingly complex. The role of gatekeepers and professional enablers such as property developers, accountants, architects, lawyers, notaries and similar professionals as facilitators in the process continues to underpin the methods used by criminal groups. The services provided by these professionals give the apparatus of money laundering considerable sophistication and a veneer of respectability. The role of professional facilitators is a crucial factor in certain money laundering techniques, such as investment in real estate and the setting up of offshore companies, trusts etc., all of which tend to require the involvement of qualified professionals.

Box 25: Europol case study on professional enablers engaged in money laundering

The role of professional enablers is noted in the vast majority of cases seen by Europol. In one case, for example, cash couriers drove large consignments of cash (approximately EUR 2 million on each journey) from the Netherlands to Spain. Their reason for following this route was that the organised crime group made use of a complicit banking official in Spain who could place these large cash sums in accounts, ready for onward transfer, without filing any STRs or arousing suspicion. In the much-publicised case of the former governor of Nigeria's Delta State, convicted of money laundering, embezzlement and corruption, the money laundering scheme would not have been possible without the assistance of a corrupt solicitor. The solicitor contrived complex schemes to launder the wealth stolen from the Delta State, secreting an estimated GBP 50 million in bank accounts worldwide and devising schemes that enabled him to use the funds to buy properties and private jets.

Bank officials or agents of money service businesses who are willing to turn a blind eye to suspicious activities may omit certain details from forms or fail to report the transactions to the authorities. Lawyers and accountants also abuse their positions to assist criminal groups with setting up front companies, or signing off company accounts where they should raise concerns about company activities. A recent anti-money laundering operation coordinated by Europol showed that organised crime groups active in Spain received great assistance from legal practices with circumventing money laundering regulations and set up a network of corporate vehicles used for illegal purposes.

Complicit professionals including accountants and legal and tax experts have also been seen to provide services to distance people in positions of power from financial transactions that would highlight corrupt practices (e.g. rigging of public tenders, embezzlement of state funds) by setting up companies and linked accounts using straw men as directors or simply channelling funds through the accounts of other unwitting clients.

483. If transactions related to illegal money before laundering are under-recorded or not recorded, estimates should be prepared for the national accounts, e.g. for *P.11 Market output of professional gatekeepers*, and classified under *NACE Section M — Professional, scientific and technical activities, division 69 Legal and accounting activities*. When estimating professional and management consulting services, it should be borne in mind that there is at least an incentive to report a significant amount for fictitious services in order to hide the real service rendered.

A.6.3. Traders in goods

484. Art and antiques are goods that meet all the criteria for attracting money laundering. Their high global mobility, value stability and inconspicuousness makes these objects supremely suitable as a currency equivalent and puts them at a higher risk of money laundering than consumer goods or luxury goods. There are also very few controls, and this greatly increases the probability of a lack of due diligence. Experts consider art and antique dealers to be at by far the highest risk, but problem awareness in this group is completely inadequate. The same applies to *boat and yacht dealers* as a group.
485. Given that many traders in goods are not aware of the origin of the laundered money, there may be no specific reason to underreport, so their output is likely to include money laundering services.
486. However, if productive transactions in the dirty money upstream are under-recorded or not recorded, estimates should be prepared for the national accounts, e.g. for *P.11 Market output of professional gatekeepers* and classified under *NACE Section G — Wholesale and retail trade; repair of motor vehicles and motorcycles, division 47 Retail trade except of motor vehicles and motorcycles*.
487. For balance of payments statistics, these transactions should be considered in the current account under the functional category *Goods as general merchandise*. If no reliable data sources can be found, estimates should be made by Member States on the basis of financial intelligence units' data on the non-financial sector.

A.6.4. Service sector

488. Cash-intensive businesses include (but are not limited to) gold and jewellery stores, restaurants and bars, currency exchange offices and casinos (primarily physical locations rather than virtual casinos) which typically operate in cash and are often used for money laundering. There are particularly high risks of money laundering in the hotel and restaurant sector because of the common practice of dealing in cash. Businesses are frequently started or purchased with the sole purpose of declaring illicit money to the tax authorities in order to feed it into the legal business cycle. With their focus on taxation, tax offices are interested primarily in unjustified operating costs and not in artificially inflated business profits. As long as the turnover declared is not unrealistic and no suspicious operating costs are entered in the tax declaration, money laundering will go undetected. As a result, the entire service sector is basically suitable for placement of large amounts of illicit cash.

Box 26: Europol case study on money laundering in the service sector

One investigation by the Italian authorities into the criminal activities of the 'Fidanzati' Mafia group led to the seizure of 14 businesses (restaurants, discos, bars, etc.). These cash-front businesses were all owned and managed at arm's length by the Mafia, through family members, associates and straw men. Criminal profits from the group's illegal activities were used to acquire the companies and finance business costs (pay suppliers, employees, rents, etc.). The estimated value of the businesses seized was around EUR 15 million, which had been injected in cash from the proceeds of crime.

489. There is at least an incentive to report a significant amount for fictitious services in order to hide the real service rendered. If productive transactions to clean dirty money are under-recorded or not recorded, estimates should be prepared for the national accounts, e.g. for *P.11 Market output of professional gatekeepers* and classified under *NACE Section I — Accommodation and food service activities, division 55 Accommodation / division 56 Food and beverage service activities*. For balance of payments statistics, these transactions should be considered in the current account under the functional category *Services*, and recorded as business or private travel. Cross-border payments for the purchase or sale of enterprises, the object of which is the commercial use of land and buildings (e.g. hotels, restaurants and the like) should be recorded under foreign direct investment.

A.6.5. Organisers and retailers of online gambling

490. Other services on the internet, such as online casinos and online gambling, are also exploited by organised crime groups for money laundering purposes. In one case seen by Europol, the online casino itself was set up and run by an organised crime group providing money laundering infrastructure.
491. The risk involved in national lotteries and public sports betting appears to be low, because this is a regulated sector with a variety of control mechanisms that also cover the prevention of money laundering. In contrast, the greatest susceptibility is to be found in the unregulated sector of online gambling businesses, which often have registered offices located offshore. There is also the risk of businesses failing to report suspicions because they are themselves involved in laundering money acquired through illegal businesses. Like the service sector as a whole, amusement arcades are particularly suited to introducing very high amounts of cash by manipulating the turnover of slot gaming machines. Checks on actual usage are almost non-existent, so inflated tax returns can be submitted without being questioned.
492. If productive transactions to clean dirty money are under-recorded or not recorded, estimates should be prepared for the national accounts e.g. for *P.11 Market output of professional gatekeepers* and classified under *NACE Section R Arts, entertainment and recreation, division 92 Gambling and betting activities*. The amounts paid for lottery tickets or placed in bets consist of two elements: the payment of a service charge to the unit organising the lottery or gambling and a residual current transfer that is paid out to the winners. The service charge may be substantial and cover taxes on the production of gambling services. The transfers are regarded in the system as taking place directly between those participating in the lottery or gambling, that is, between households. When non-resident households take part, significant net transfers can arise between the *Households* sector and the *rest of the world*. For balance of payments purposes, the value of the lottery and other gambling services supplied by or to non-residents could be estimated as the amount wagered by non-residents multiplied by the overall ratio of services to the total amount wagered for that gambling operator or type of gambling.
493. There might not be a special risk of underreporting when money laundering occurs inside the economy. When it occurs in the *rest of the world* account, there is a risk of omitting the service and transfer transactions. For balance of payments statistics, these transactions should be considered in the current account under the functional category *Services*, and recorded as remote gambling data incorporated in *Personal, cultural and recreational services*.

A.6.6. Real estate sector

494. Money laundering via the real estate sector is a means of both unsyndicated and syndicated money laundering. Cash-intensive businesses and front companies may be used to reinvest the proceeds of crime and provide a cover for IEDs. The real estate sector is considered a high-risk sector with a simultaneously low level of awareness among real estate agents, who have a reporting obligation under the Fourth Anti-Money Laundering Directive.⁽²⁰¹⁾ The high transaction volumes of real estate sales make this sector of the economy exceptionally attractive to money launderers. The stable value of certain regions and properties is also attractive. Apart from stand-alone money laundering, successful tactics are often the use of so-called 'shadow operators', or of, say, foreign business to conceal the economic beneficiaries. In addition, the practice of using cash to buy real estate is far too common in view of the large sums involved. These already high risks are greatly increased by failure to practise due diligence and the very low willingness of real estate agents to report suspicious cases. As intermediaries, they do not require details of the subsequent transaction. However, in practice, they certainly do ask about financing because of their self-evident interest in estimating the probability of success. Real estate agents are well able to gather information on financial circumstances and on the economic beneficiaries.

⁽²⁰¹⁾ Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC (Text with EEA relevance), OJ L 141, 5.6.2015, p. 73.

495. Major risks in the real estate sector are also found among property developers and architects who are not among the parties obliged to report suspicious transactions under the Directive. This branch of the economy also displays a lack of awareness of the risks involved. On the one hand, large amounts of cash can be spent on commissions to architects and property developers, as well as for the construction work itself. On the other hand, so-called 'junk properties' can be bought to be restored and resold later, at a profit that depends on financing them with illicit money.
496. If productive transactions in the dirty money upstream (for placement and layering) are under-recorded or not recorded, estimates should be prepared for the national accounts, e.g. for *P.11 Market output of professional gatekeepers for NACE Section M — Professional, scientific and technical activities, division 71 Architectural and engineering activities; technical testing and analysis*.
497. For balance of payments statistics, estimates should be prepared for cross-border receipts from and expenditure for services rendered by architects for the planning, development and design of constructions, interior designers, and landscape architects. Integration into real estate should be considered cross-border investment and therefore recorded under the functional category in the financial account as foreign direct investment.

A.7. Layering and integration via financial corporations except MFI and ICPFs

A.7.1. Placement and layering via shell and front companies

498. The use of front companies and legitimate business structures to launder the proceeds of crime is common among criminal gangs. Cash-intensive businesses can help with the placement of illegal funds, mixing them with legitimate revenue and making detection, confiscation and seizure more complicated. Equally, at the integration stage, money can be invested in businesses, thus both investing in 'legitimate' assets and creating a platform by which future proceeds of crime can be passed off as legally generated profits.
499. When businesses are misused for illegal purposes, the first concern of criminals is to remain undetectable behind the 'corporate veil'. One way is to combine several layers of transactions with the use of multiple accounts, thus making any attempts to follow the audit trail more difficult. Shell companies in offshore jurisdictions with weaker anti-money laundering policies are also used at the placement stage to receive deposits of cash which are then sent to other jurisdictions, or at the integration stage to buy real estate.

Box 27: Europol case study on money laundering through shell and front companies

One money laundering case seen by Europol showed the role played by corporate structures in laundering the proceeds of corruption. Around EUR 200 million was laundered through a vast network of corporate structures (shell companies incorporated in offshore companies) conducting banking transactions throughout Europe and beyond. The use of corporate structures created significant difficulties in identifying a beneficial owner or natural person behind the assets: although suspect transactions between companies were spotted, they could not be linked to a beneficial owner. Without civil asset recovery provisions, you need to identify a natural person to obtain a criminal conviction. In one EU Member State and a non-EU country, several million euros were identified and frozen, but if the beneficial owner cannot be named, little can be done to confiscate the money.

A.7.2. Layering and integration via financial auxiliaries

500. Insurance premiums and payments are fundamentally non-cash transactions, so within the financial sector illicit money first has to be placed somewhere it will leave a paper trail. Insurance agents (mostly independent) who collect premium payments from their customers in their own bank accounts and then transfer them to insurance businesses represent one security loophole. Large cash payments are conceivable here. This may allow the origins of illicit money to be concealed in insurance.
501. If productive transactions in the dirty money upstream (for placement and layering) are under-recorded or not recorded, estimates should be prepared for the national accounts, e.g. for *P.11 Market output for NACE Section K — Financial and insurance activities, division 66 Activities auxiliary to financial services and insurance activities*.
502. Cross-border transactions should be considered in the balance of payments in the current account under the functional category *Services as Insurance and pension services*.

A.7.3. Layering and integration via money service businesses

503. In providing exchange and remittance services, money service businesses and informal value transfer systems facilitate the laundering of substantial sums of money from various crimes.
504. Money service businesses provide criminals with opportunities to distance illicit funds from their criminal origin through transfers and currency exchange. Criminals may use the service, like bureau de change services, to convert small banknotes into high-denomination notes, in particular the 500-euro banknote, which can then be smuggled out of the country.
505. Illicit funds enter money service businesses in cash, as electronic transfers or as cheques dependent on the predicate offence. Smurfing is a common technique to circumvent money laundering controls and reduce the risk of detection as it enables large sums to be broken down into less detectable transactions. Money service businesses can play a role at the layering stage of money laundering: the proceeds of crime can be transferred electronically to a money service business, often through third-party payments, and this money is then transferred to the chosen destination.
506. If productive transactions are under-recorded or not recorded during placement and layering in the dirty money upstream, estimates should be made for the national accounts, e.g. for *P.11 Market output for NACE Section K — Financial and insurance activities, division 64 Financial service activities, except insurance and pension funding*.
507. For balance of payments statistics, transactions should be considered in the current account under the functional category *Services as financial services*.

Box 28: Europol case study on money service businesses

Money service businesses used to facilitate criminal activity may be controlled by criminal groups or run by corrupt/complicit agents who turn a blind eye to criminal activities. In Italy, for example, a network of money service businesses controlled and managed by a Chinese company was infiltrated by an organised crime group and was responsible for laundering over EUR 1 billion in less than two years. The Chinese money service businesses controllers were well aware of suspicious transaction reporting standards, and deliberately used the technique of 'smurfing': breaking down large sums of money into transactions just under EUR 1 000 or EUR 2 000 to avoid reporting thresholds. They did not identify 'customers', but instead used false documents relating almost entirely to fictitious persons.

A.7.4. Layering and integration via informal value transfer systems

508. Money launderers know that the risk involved in physical transportation of cash can be easily mitigated through a complex layering process involving trade misinvoicing and *hawala*-type transactions that enable a trader to use a currency substitution method (*hawala* is a traditional form of cash transfer without money movement). The trader acts as a clearinghouse, financing misinvoicing in both directions, so the physical transport of cash is often unnecessary to settle accounts. Take, for example, the case where a trader needs an injection of local currency to finance substantial import over-invoicing. The trader has to come up with local counterpart funds to finance the over-invoicing. The need for additional cash in local currency can be met through a *hawala*-type transaction whereby the importer receives local currency in exchange for foreign exchange needed by a resident (e.g. to meet medical or educational expenses in excess of the regulatory maximum). The importer finances the payment abroad in foreign currency by tapping an external account holding illicit funds (possibly financed through import over-invoicing and export under-invoicing). A few years ago, the US State Department issued an alert regarding the interaction between trade-based money laundering and the use of *hawala* as a clearing mechanism in India.
509. *Hawala*-type systems (informal value transfer systems) are unregulated, and so may be preferable to mainstream banking or money service businesses as there is little to no risk of detection. In one case where large sums of money were transferred from one country to another, the criminals paid substantially higher fees than those charged by official banks, compensating for the risk associated with these activities.

Box 29: Europol case study on informal value transfer systems

Members of an organised crime group collected money from the illicit activities of Chinese and Arabian citizens residing in Romania and exchanged it for foreign currency with the help of exchange house owners. The money was then sent from Romania to Syria or Turkey using couriers. From there, it could be redirected to other specific destinations. When the smuggled cash was seized, the notes were found to be marked with symbols associated with *hawala*. Typically, settlement between informal value transfer systems brokers takes place in legitimate financial channels, exploiting international trade instruments for trade-based money laundering.

A.7.5. Integration via S.127 captive financial institutions and money lenders

510. The professional gatekeeper may operate a brass plate company (*S.127 Captive financial corporation*), established onshore or in *Offshore financial centres*. These institutional units are covered as legal and economic units in the business registers and are subject to censuses and surveys. Small and medium-sized units, in particular, may conceal a considerable portion of their output and profits. Professional gatekeepers, e.g. offering 'legal services' via brass plate companies, may — to a certain extent in order to avoid revealing their money laundering activity — under-declare their income from providing expertise for and facilitating money laundering. Statistical estimates could improve measurement of such service provision.
511. If productive transactions before laundering (placement and layering) are under-recorded or not recorded, estimates should be made for the national accounts, e.g. for *P.11 Market output in NACE Section K — Financial and insurance activities, division 64 Financial service activities, except insurance and pension funding*.
512. Cross-border transactions should be considered in the balance of payments in the current account, under the functional category *Services*, as financial services.

A.7.6. Integration via offshore financial centres

513. Corporate entities, including corporations, trusts, foundations and partnerships with limited liability characteristics, conduct a wide variety of commercial activities and are the basis for a broad range of entrepreneurial activities in market-based economies. Despite the important and legitimate roles they play in the global economy, however, there is a certain stigma associated with offshore financial centres (OFCs) which means that they are perceived to be involved in money laundering or other illegal activities by disguising and converting the proceeds of crime before it enters the legitimate economy.
514. The Organisation for Economic Cooperation and Development (OECD) examined a series of examples of misuse of corporate vehicles.⁽²⁰²⁾ The vulnerability of corporate vehicles to misuse for illegal purposes depends largely on how much anonymity they offer and the type of regulatory regime to which they are subject. In many OFCs, corporate entities may issue bearer shares and may employ nominee shareholders and nominee directors to disguise ownership and control. They are often subjected to little or no formal supervision, with no requirement to file annual returns or annual accounts. In summary, the combination of effective anonymity and little or no supervision makes corporate vehicles in OFCs more susceptible to misuse.
515. The main purpose of OFCs is to provide financial services to non-residents, i.e. to export financial services. Earnings from these exports typically come from: financial services billed to non-residents by entities domiciled offshore; bank fees for advisory services and financial engineering; intermediary service fees, such as those for lines of credit, financial leasing and foreign exchange; commissions on the administration of funds, and on securities transactions, including brokerage, placement of bond issues, underwriting, the arrangement of swaps, options and other hedging instruments; services relating to asset management; security custody services, etc.; and registration/renewal fees for licensed entities (offshore banks, insurance companies, collective investment vehicles, international business companies, trusts and estates, etc.). In addition, OFCs also deliver non-financial services, including ship and aircraft registration, trademarks, patents and copyright registration.
516. Transfers of financial capital to OFCs are often unreported. In most cases, the funds they hold belong — either directly or through a chain of interposed entities (special purpose vehicles, shell companies, etc.) — to individual investors. The methods used to transfer money to OFCs may vary; some of the most common channels are: cash transfers, misinvoicing of goods and services, the transfer of funds and direct payments to offshore entities or bank accounts.
517. OFCs have numerous financial activities. About 4 % of the world's foreign direct investment is routed through OFCs such as the British Virgin Islands.⁽²⁰³⁾ Data gathered from the IMF's Coordinated Direct Investment Survey (CDIS) show that for 2015 for instance, nearly 31 % of India's inward direct investment came from Mauritius and Singapore; 65 % of China's came from Hong Kong, the British Virgin Islands and Singapore. It is possible that a significant portion of the large outflows from source countries such as China and India may be absorbed in satellite tax havens (such as the British Virgin Islands and Mauritius, respectively) which are then round-tripped back to the source country in the form of recorded FDI. The source countries face a double loss — first when taxes are evaded on the outflows, and second when special treatment (tax holidays and subsidies) is given to FDI flowing into certain preferred sectors.
518. Many investment funds and financial vehicles are incorporated offshore. Most hedge funds, for example, are resident in the Cayman Islands.
519. The ECB collects detailed information on holdings of securities by investors resident in the euro area, such as households in Germany and monetary financial institutions in France, and on non-resident investors' holdings of euro area securities that are deposited with a euro area custodian, such as US investors' holdings of German securities deposited in Luxembourg.⁽²⁰⁴⁾ At the same time, offshore portfolios negate such statistics: as the ECB states, 'A classical challenge, or even a 'blind spot', of national BOP data collection systems is represented by holdings (transactions) by residents in (or using) accounts held abroad.'⁽²⁰⁵⁾ When

⁽²⁰²⁾ See the OECD report, *Behind the Corporate Veil: Using Corporate Entities for Illicit Purposes*, 2001.

⁽²⁰³⁾ <http://data.imf.org/regular.aspx?key=60564264>.

⁽²⁰⁴⁾ 'Who holds what? New information on securities holdings', ECB, *Economic Bulletin*, Issue 2/2015, p. 72.

⁽²⁰⁵⁾ ECB, *Task force on portfolio investment collection systems — final report*, June 2002, p. 8.

domestic households entrust securities issued by non-residents to custodians residents in third-countries, the assets cannot be captured by surveying the national custodian; they go mostly unrecorded in the national international investment position, unless countries would have indirect estimation methods.

520. OFCs could be approached to provide information about the portfolios held by non-resident households through their banks. However, this information is difficult to obtain as it is not normally disclosed. Foreign assets held by domestic intermediaries are captured by data collection systems. It is likely that a significant part of undeclared assets are held abroad by financial institutions resident in OFCs.
521. Compilers quantify the underreporting of portfolio assets by analysing the discrepancy between portfolio stocks of liabilities and assets on the basis of mirror statistics. Data derived from the IMF's Coordinated Portfolio Investment Survey (CPIS) could be matched to data from international investment position statistics and integrated with other statistical sources (e.g. the Extended Wealth of Nations database⁽²⁰⁶⁾) to fill the main data gaps. The CPIS does not include other financial assets, of which bank deposits are one. The amount of undeclared foreign bank deposits held by households may be estimated by looking at Bank for International Settlements (BIS) statistics on cross-border deposits by non-bank investors. Based on a study of the external wealth of 145 countries over the period 1970–2004, Lane and Melesi-Ferretti found that there were global discrepancies in the reporting of foreign assets and liabilities of nations. The discrepancies point to the hidden accumulation of wealth in external accounts.⁽²⁰⁷⁾

A.7.7. Productive transactions: estimates of commissions/fees for PMLS

522. Estimates of commissions/fees related to PMLS should be prepared e.g. for the following institutional sectors:
- *S.11 Non-financial corporations: Professional gatekeepers;*
 - *S.125 Other financial intermediaries, except insurance corporations and pension funds (Specialised financial vehicles);*
 - *S.126 Financial auxiliaries: Money remitters, currency dealers, issuers of stored value and monetary instruments, shell companies;*
 - *S.127 Captive financial institutions and money lenders: shell companies established by professional gatekeepers (e.g. lawyers); and*
 - *S.2 Rest of the world: Offshore financial centres.*
523. Often, institutional units *S.122/S.123 Other monetary financial institutions* and *S.124 Non-MMF investment funds* will be unaware of their involvement in money laundering, and the fees that banks charge for transferring money between different accounts should be included in the system of national accounts together with the fees from legal transactions.

A.7.8. Placement and layering: productive transactions between primary offenders and syndicated money launderers

524. A money laundering model may be based on institutional units providing a variety of legitimate but fictitious services. These day-to-day operations are based on a contract, and invoices justifying the payments. As there is an incentive to report fictitious services, underreporting might not be significant. For completeness, estimates for *P.11 Market output* should be prepared for the national accounts:
- *NACE Section G – Wholesale and retail trade; repair of motor vehicles and motorcycles, division 47: Retail trade except of motor vehicles and motorcycles;*

⁽²⁰⁶⁾ <http://www.philiplane.org/EWN.html>.

⁽²⁰⁷⁾ 'The external wealth of nations mark II: revised and extended estimates of foreign assets and liabilities, 1970-2004', *Journal of International Economics*, Vol. 73, Issue 2, November 2007, pp. 223-250.

- NACE Section I — Accommodation and food service activities, division 55: Accommodation or division 56: Food and beverage service activities;
- NACE Section K — Financial and insurance activities, division 64: Financial service activities, except insurance and pension funding;
- NACE Section M — Professional, scientific and technical activities, division 69: Legal and accounting activities;
- NACE Section R — Arts, entertainment and recreation, division 92: Gambling and betting activities.

A.7.9. Layering and integration: distributive transactions between primary offender and syndicated money launderers

525. Shell companies enable huge amounts of money to be expatriated through simple transfers. The funds are transferred to the bank accounts of domestic companies from various countries, including offshore financial centres. The transfers allegedly correspond with loans or payments (often for imports or exports). Since very little ownership information is available, statistical compilers find it difficult to identify the originator or beneficiary entities. Specifically, third parties, nominees and straw persons are used to conceal true ownership. As little information is available about complicit institutional units, this *Handbook* suggests analysing as a money laundering model whether professional gatekeepers operate e.g. financial vehicle corporations (S.125 *Other financial intermediaries, except insurance corporations and pension funds*) or brass plate companies (S.127 *Captive financial corporations*). The movement of dirty money from the primary offender (S.14 *Households*) to the professional gatekeeper (S.11 *Non-financial corporation*) or brass plate company (S.127 *Captive financial corporations*) should be recorded as D.759 *Other miscellaneous current transfers*.
526. The primary offender, in exchange for the money laundering commission/fee paid (in the model, 10 %) ⁽²⁰⁸⁾ to the professional gatekeeper, receives a percentage (in the model, 90 %) in clean money as D.759 *Other miscellaneous current transfers* (integration: payback).
527. The brass plate company or financial vehicle corporation can be analysed as an institutional unit issuing 'shadow shares', and distributing dividends (D.421 *Dividends*) to the primary offender (pay-out) who placed funds at the disposal of the brass plate company.

A.7.10. Integration

528. The income generated by transactions in illegal economic activities is used, sometimes after laundering the money, for final consumption purposes, investment in non-financial and financial assets, etc. It can be assumed that this expenditure on legitimate items will be covered implicitly in the system of national accounts and balance of payments statistics. However, further analysis is suggested to find the relevant financial flows to tax havens or offshore financial centres and transactional holdings of cash to facilitate transactions related to illegal goods and services and proceeds.

⁽²⁰⁸⁾ To verify the commission (fee) over time and the predicate crime, national compilers should give priority to official information issued by government institutions involved in the field. Experts from outside the statistical system who are involved in combating and observing illegal economic activities may make a crucial contribution to developing credible estimates of money laundering. One national money laundering strategy (US Treasury 2002, p. 12) cited a study which revealed that commissions average between 4 % and 8 %, with a high of 12 % of the principal involved. The market commission price charged by someone engaged in the business of laundering money should also reflect, to some extent, the perceived street risk of getting caught by law enforcement agencies. Professional money launderers offer criminal groups a service, and the market price of their service is subject to variations caused by changes in supply and demand. Effective law enforcement efforts against professional money launderers should lower the total supply of those offering money laundering services both by putting current service providers in jail and by reducing the number of providers willing to enter the business as the risk of going to jail rises. Since the commission rate reflects a market valuation of the risk to the launderers, a marked decline in the commission rate charged in a given locale could indicate that launderers do not fear detection and capture. Commissions are the fees the launderers charge to launder illegal proceeds. These commissions, typically negotiated, are an amount paid as a percentage of the total amount laundered and the underlying crime. It is necessary to conduct permanent investigation activity to verify the commission (fee) rate.

A.7.11. Numerical examples in a sequence of accounts related to PMLS

529. The tables below provide a stylised sequence of accounts for the proceeds of (EUR 607.56 million). 83 % of the total proceeds of illegal drugs trafficking (EUR 504.27 million) are laundered by the primary offender through . The primary offender pays a service fee of 10 % (EUR 45.84 million) to syndicated money launderers for placement and integration of the launderable money (EUR 458.43 million). During the placement stage, the part of the illicit money that is not laundered is spent on consumption (17 % or EUR 103.29 million); during the layering and integration stages, the laundered money is spent on arts and antiques (EUR 100.00 million) and real estate (EUR 154.62 million) in the domestic territory and transferred to OFCs (EUR 204.59 million). Following earlier integration into the legal economy, the primary offender receives clean money downstream in the form of dividends (EUR 160.87 million) and pays taxes (EUR 160.09 million) on legalised cash. During the placement, layering and integration stages the primary offender maintains legal and economic ownership of the illicit money.

Table 15: Sequence of accounts for PMLS relating to syndicated money laundering of the proceeds of illegal drugs production and trafficking ⁽²⁰⁹⁾

| S.14 Households: Primary offender (unincorporated enterprise) | | | |
|--|--------|------------------|--------|
| Production account | | | |
| Uses | | Resources | |
| P.2 Intermediate consumption (money laundering commission/fee) | 45.84 | P.1 Output | 607.56 |
| B.1g Value added | 561.72 | | |

Distribution and use of income accounts

| Distribution and use of income accounts | | | |
|--|--------|--|--------|
| Generation of income account | | | |
| B.2g Operating surplus, gross/ B.3g mix income, gross | 561.72 | B.1g Value added | 561.72 |
| Distribution and use of income accounts | | | |
| Allocation of primary income account | | | |
| Gross balance of primary income/ B.5g gross national income | 722.59 | B.2g Operating surplus, gross/ B.3g mix income, gross | 561.72 |
| | | D.4 Property income | 160.87 |
| Secondary distribution of income account | | | |
| D.5 Current taxes on income | 160.09 | Gross balance of primary income/ B.5g gross national income | 722.59 |
| B.6g National disposable income, gross | 562.5 | | |
| Use of income account | | | |
| Use of disposable income account | | | |
| P.3 Final consumption expenditure | 103.29 | B.6g National disposable income, gross | 562.5 |
| B.8g National saving, gross | 459.21 | | |

⁽²⁰⁹⁾ Green: what might be recorded in the accounting framework; Red: what might be not recorded in the accounting framework.

| Use of adjusted disposable income account | | | |
|--|--------|--|--------|
| B.8g National saving, net | 459.21 | B.7g Adjusted disposable income, gross | 459.21 |
| Accumulation accounts | | | |
| Capital account | | | |
| P.51g Gross fixed capital formation (real estate) | 154.62 | B.8n National saving, net | 459.21 |
| P.53. Acquisitions less disposals of valuables | 100 | | |
| B.9 Net lending/net borrowing | 204.59 | | |
| Financial accounts | | | |
| Transactions in Financial assets | | | |
| F.3 Securities other than shares | 204.59 | B.9F Net lending/net borrowing | 204.59 |
| S.11 Professional gatekeeper (lawyer) | | | |
| Production account | | | |
| Uses | | Resources | |
| B.1g Value added | 780 | P.1 Market output for money laundering | 45.84 |
| | | P.1 Market output for the provision of legal services | 729.57 |
| Generation of income account | | | |
| D.1 Compensation of employees | 560 | B.1g Value added | 780 |
| D.29 Other taxes on production, less subsidies | 54 | | |
| B.2g Operating surplus, gross/B.3g mix income, gross | 166 | | |
| Distribution and use of income accounts | | | |
| Allocation of primary income account | | | |
| | | B.2g Operating surplus, gross/B.3g mix income, gross | 166 |
| Gross balance of primary income/B.5g gross national income | 393 | D.4 Property income | 227 |
| Secondary distribution of income account | | | |
| D.51 Current taxes on income | 20 | Gross balance of primary income/B.5g gross national income | 393 |
| B.6g National disposable income, gross | 373 | | |
| Use of income account | | | |
| Use of disposable income account | | | |
| B.8g National saving, gross | 373 | B.6g National disposable income, gross | 373 |
| Financial accounts | | | |
| Transactions in Financial assets | | | |
| F.2 Currency and deposits | 373 | B.9F Net lending/net borrowing | 373 |

Table 16: Integrated economic accounts (extract)

| ANNUAL ACCOUNTS BY INSTITUTIONAL SECTOR | | | | | | | | | | |
|---|-------------------------------|-----------------------------------|---------------------------------------|-------------------------|---|-------------------------|---------------------------------------|-----------------------------------|-------------------------------|---|
| Uses | | | | | Resources | | | | | |
| CURRENT ACCOUNTS | | | | | CURRENT ACCOUNTS | | | | | |
| S.14+S.15 Households including NPISH | S.13 General government | S.12 Financial corporations | S.11 Non-financial corporations | S.1 Total economy | S.2 ROW | S.1 Total economy | S.11 Non-financial corporations | S.12 Financial corporations | S.13 General government | S.14+S.15 Households including NPISH |
| 1.1 PRODUCTION ACCOUNT | | | | | | | | | | |
| | | | | | P.1 Output | 1387.56 | | 780 | | 607.56 |
| 45.84 | | | | 45.84 | P.2 Intermediate consumption | | | | | |
| 561.72 | | | 780 | 1341.72 | B.1g Gross value added | | | | | |
| 561.72 | | | 780 | 1341.72 | B.1g¹ Gross domestic product | | | | | |
| 1.2 GENERATION OF INCOME ACCOUNT | | | | | | | | | | |
| | | | | | B.1g Gross domestic product | 1341.72 | | 780 | | 561.72 |
| | | | 560 | 560 | D.1 Compensation of employees | | | | | |
| | | | 54 | 54 | D.29 Other taxes on production | | | | | |
| 561.72 | | | 166 | 727.72 | B.2g/ B.3g Gross operating surplus/ Mixed income | | | | | |
| 1.3 ALLOCATION OF PRIMARY INCOME ACCOUNT | | | | | | | | | | |
| | | | | | B.2g/ B.3g Gross operating surplus/ Mixed income | 727.72 | | 166 | | 561.72 |
| | | | | | D.4 Property income | 387.87 | | 227 | | 160.87 |
| 722.59 | | | 393 | 1115.59 | B.5g Gross national income | | | | | |

Table 16: Integrated economic accounts (extract) – cont.

| ANNUAL ACCOUNTS BY INSTITUTIONAL SECTOR | | | | | | | | | | |
|---|---------------------------------------|-------------------------|------------|-------------------------|---|-------------------------|---------------------------------------|-------------------------------|---|---------------|
| Uses | | | | | Resources | | | | | |
| CURRENT ACCOUNTS | | | | | CURRENT ACCOUNTS | | | | | |
| S.12 Financial corporations | S.11 Non-financial corporations | S.1 Total economy | S.2 ROW | S.1 Total economy | S.2 ROW | S.1 Total economy | S.11 Non-financial corporations | S.13 General government | S.14+S.15 Households including NPISH | |
| 1.4 SECONDARY DISTRIBUTION OF INCOME ACCOUNT | | | | | | | | | | |
| | | | | | B.5g Gross national income | 1115.59 | | 393 | | 722.59 |
| | 20 | 180.09 | | | D.5 Current taxes on income, wealth, etc. | | | | | |
| 373 | 935.5 | 935.5 | | | B.6g Gross disposable income | | | | | |
| 1.5 USE OF DISPOSABLE INCOME ACCOUNT | | | | | | | | | | |
| | | | | | B.6g Gross disposable income | 935.5 | | 373 | | 526.5 |
| | | 103.29 | | | P.3 Final consumption expenditure | | | | | |
| 373 | 832.21 | 832.21 | | | B.8g Gross saving | | | | | |

530. 531 provides a stylised sequence of accounts for proceeds of illegal prostitution services. 74 % of the total proceeds of illegal prostitution (EUR 800.00 million) are laundered by the primary offender *S.14 Households* (EUR 592.00 million). Illegal prostitution services are consumed by non-residents (EUR 200 million). The primary offender pays a service fee of 10 % (EUR 53.81 million) to (*S.11 Non-financial corporation: professional gatekeeper*) for providing the laundering infrastructure and placement and integration of the illicit money (EUR 538.18 million). The professional gatekeeper bills EUR 592.00 million (commission fee EUR 53.81 million plus EUR 538.18 million to be integrated), even if no services are rendered to the primary offender.
531. Within a distributive transaction, launderable money (EUR 538.18 million) is shifted from the lawyer to a (*S.127 Captive financial corporation*) set up by the lawyer. The brass plate company facilitates layering and integration. It issues 'shadow dividends' and delivers a positive annual return of EUR 140.80 million to the investor (primary offender), after the successful integration (payback) of illicit money into the real economy.

Table 17: Sequence of accounts for syndicated money laundering of the proceeds of illegal prostitution ⁽²¹⁰⁾

| S.14 Households: Primary offender (unincorporated enterprise) | | | |
|---|--------|--|--------|
| Production account | | | |
| Uses | | Resources | |
| P.2 Intermediate consumption (money laundering commission/fee paid to the professional gatekeeper) | 53.81 | P.1 Output | 800.00 |
| P.2 Intermediate consumption paid to the professional gatekeeper on the basis of legal, but fictitious services | 538.18 | | |
| P.2 Intermediate consumption (apartment, driving service, body guard, drinks) | 80.00 | | |
| B.1g Value added | 128.00 | | |
| Distribution and use of income accounts | | | |
| Generation of income account | | | |
| B.2g Operating surplus, gross/ B.3g mix income, gross | 128 | B.1g Value added | 128 |
| Distribution and use of income accounts | | | |
| Allocation of primary income account | | | |
| | | B.2g Operating surplus, gross/B.3g mix income, gross | 128.00 |
| Gross balance of primary income/ national income | 268.80 | D. 421 Dividends | 140.80 |
| Use of income account | | | |
| Use of disposable income account | | | |
| P.3 Final consumption expenditure | 267.20 | B.6g National disposable income, gross | 268.80 |
| B.8g National saving, gross | 1.60 | | |
| Use of adjusted disposable income account | | | |
| B.8g National saving, net | 1.60 | B.7g Adjusted disposable income, gross | 1.60 |
| Accumulation accounts | | | |
| Capital account | | | |
| B.9 Net lending/net borrowing | 1.60 | B.8n National saving, net | 1.60 |

⁽²¹⁰⁾ Green: what might be recorded in the accounting framework; Red: what might be not recorded in the accounting framework.

| Financial accounts | | | |
|---|--------|---|--------|
| Transactions in Financial assets | | | |
| F.2 Currency and deposits | 1.60 | B.9F Net lending/net borrowing | 1.60 |
| S.11 Non-financial corporation (professional gatekeeper, lawyer, accountant) | | | |
| Production account | | | |
| Uses | | Resources | |
| B.1g Value added | 592.00 | P.1 Market output for money laundering | 53.81 |
| | | P.1 Market output for the provision of legitimate but fictitious legal services to the primary offender | 538.18 |
| Distribution and use of income accounts | | | |
| Generation of income account | | | |
| B.2g Operating surplus, gross/ B.3g mix income, gross | 592.00 | B.1g Value added | 592.00 |
| Distribution and use of income accounts | | | |
| Allocation of primary income account | | | |
| Gross balance of primary income/ B.5g gross national income | 592.00 | B.2g Operating surplus, gross/B.3g mix income, gross | 592.00 |
| Secondary distribution of income account | | | |
| D.759 Other miscellaneous current transfers to the brass plate company | 538.18 | Gross balance of primary income/ B.5g gross national income | 592.00 |
| B.6g National disposable income, gross | 53.82 | | |
| Use of income account | | | |
| Use of disposable income account | | | |
| B.8g National saving, gross | 53.82 | B.6g National disposable income, gross | 53.82 |
| Use of income account | | | |
| Use of adjusted disposable income account | | | |
| B.8g National saving, net | 53.82 | B.7g Adjusted disposable income, gross | 53.82 |
| Accumulation accounts | | | |
| Capital account | | | |
| B.9 Net lending/net borrowing | 53.82 | B.8n National saving, net | 53.82 |
| Financial accounts | | | |
| Transactions in Financial assets | | | |
| F.2 Currency and deposits | 53.82 | B.9F Net lending/net borrowing | 53.82 |
| S.127 Captive financial corporation (brass plate company) | | | |
| Production account | | | |
| Uses | | Resources | |
| B.1g Value added | 400.00 | P.1 Market output | 400.00 |

| Generation of income account | | | |
|--|--------|---|--------|
| D.1 Compensation of employees | 20.00 | B.1g Value added | 400.00 |
| D.29 Other taxes on production, less subsidies | 10.00 | | |
| B.2g Operating surplus, gross/B.3g mix income, gross | 370.00 | | |
| Distribution and use of income accounts | | | |
| Allocation of primary income account | | | |
| D.421 Dividends (primary offender) | 140.80 | B.2g Operating surplus, gross/B.3g mix income, gross | 370.00 |
| Gross balance of primary income/B.5g gross national income | 370.00 | D.4 Property income | 140.80 |
| Secondary distribution of income account | | | |
| | | Gross balance of primary income/B.5g gross national income | 370.00 |
| B.6g National disposable income, gross | 908.18 | D.759 Other miscellaneous current transfers from professional gatekeeper (principal of brass plate company) | 538.18 |
| Use of income account | | | |
| Use of disposable income account | | | |
| B.8g National saving, gross | 908.18 | B.6g National disposable income, gross | 908.18 |
| Use of adjusted disposable income account | | | |
| B.8n National saving, net | 908.18 | B.7g Adjusted disposable income, gross | 908.18 |
| Accumulation accounts | | | |
| Capital account | | | |
| B.9F Net lending/net borrowing | 908.18 | B.8n National saving, net | 908.18 |
| Financial accounts | | | |
| Transactions in Financial assets | | | |
| F.2 Currency and deposits | 29.20 | | |
| F.71 Financial derivatives | 878.98 | B.9F Net lending/net borrowing | 908.18 |

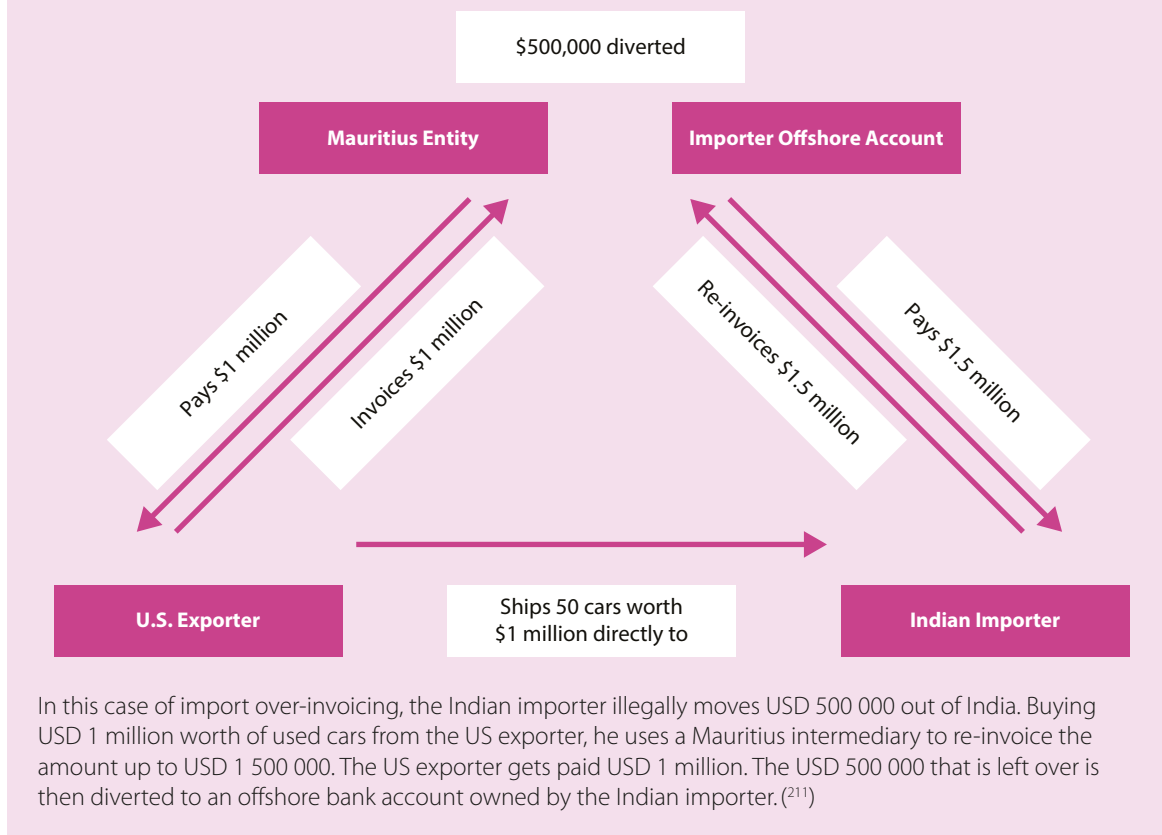
Table 18: Integrated economic accounts (extract)

| ANNUAL ACCOUNTS BY INSTITUTIONAL SECTOR | | | | | | | | | | | | |
|---|-------------------------|------------------------|----------------------------|---------------|------------------|-----|-----|---------------|----------------------------|------------------------|--------------------|----------------------------|
| Uses | | | | | CURRENT ACCOUNTS | | | Resources | | | | |
| S.14+S.15 | S.13 | S.12 | S.11 | S.1 | S.2 | ROW | S.2 | S.1 | S.11 | S.12 | S.13 | S.14+S.15 |
| Households including NPISH | General government | Financial corporations | Non-financial corporations | Total economy | | | ROW | Total economy | Non-financial corporations | Financial corporations | General government | Households including NPISH |
| 1.1 PRODUCTION ACCOUNT | | | | | | | | | | | | |
| | P.62 | | | | 200.00 | | | | | | | |
| | P1 | | | | | | | | 592.00 | 400.00 | | 800.00 |
| 672.00 | P2 | | | | | | | | | | | |
| | | | | | -200.00 | | | | | | | |
| 128.00 | B.11 | | | 1120.00 | | | | | | | | |
| | B.1g | 400.00 | 592.00 | 1120.00 | | | | | | | | |
| 128.00 | B.1g¹ | 400.00 | 592.00 | 1120.00 | | | | | | | | |
| 1.2 GENERATION OF INCOME ACCOUNT | | | | | | | | | | | | |
| | B.1g | | | | | | | 1120.00 | 592.00 | 400.00 | | 128.00 |
| | D.1 | 20.00 | | | | | | | | | | |
| | D.29 | 10.00 | | | | | | | | | | |
| 128.00 | B.2g/B.3g | 370.00 | 592.00 | 1090.00 | | | | | | | | |
| 1.3 ALLOCATION OF PRIMARY INCOME ACCOUNT | | | | | | | | | | | | |
| | B.2g/B.3g | | | | | | | 1090.00 | 592.00 | 370.00 | | 128.00 |
| | D.4 | 140.80 | | | | | | | | | | 140.80 |
| 268.80 | B.5g | 370.000 | 592.00 | 1230.80 | | | | | | | | |
| 1.5 SECONDARY DISTRIBUTION OF INCOME ACCOUNT | | | | | | | | | | | | |
| | B.5g | | | | | | | 1230.80 | 592.00 | 370.00 | | 268.80 |
| | D.759 | | 538.18 | 538.18 | | | | 538.18 | | | | |
| 268.80 | B.6g | 908.18 | 53.81 | 1230.80 | | | | | | 538.18 | | |
| 1.6 USE OF DISPOSABLE INCOME ACCOUNT | | | | | | | | | | | | |
| | B.6g | | | | | | | 1230.80 | 53.81 | 908.18 | | 268.80 |
| 267.20 | P.3 | | | 367.20 | | | | | | | | |
| 1.60 | B.8g | 908.18 | 53.81 | 963.60 | | | | | | | | |
| | | | | | | | | | | | | |

A.7.12. Trade based money laundering

532. The main methods by which money is laundered have become increasingly well documented in recent years. There has been some increase in sophistication and some change in the methods used, mainly to circumvent countermeasures taken in a number of larger economies. Running international businesses and import and export businesses offers a variety of opportunities for money laundering. By over- or under-invoicing trade in goods, deliberate deficits can be balanced with illicit cash or non-cash in a specific country of import or export. Only businesses are involved in under-invoicing, which consists of reducing revenues in the domestic economy by transferring profits to colluding foreign counterparts, generally located in countries where it is possible to obtain tax advantages. The same transfer mechanism is used to over-invoice imports, by increasing the costs of the importing company and, consequently, the revenues of the exporting foreign counterpart. This channel may also be exploited by households by means of 'fictitious' imports of goods or services.
533. Such capital export methods do not necessarily generate errors and omissions in the balance of payments statistics, as the operations may be reflected in both the current account and the financial account of the balance of payments statistics. International corporate conglomerates, the use of 'bogus businesses', and long chains of international transactions impede any effective fight against money laundering. Other major risks are posed by underground banking and virtual currencies such as bitcoins.
534. While cash-front businesses are one method that criminals favour to launder profits from illegal activities, the use of companies and business is closely linked to a related technique known as trade-based money laundering. This technique aims to legitimise proceeds via global trade transactions, often using false documentation of trade in goods and services. This practice is thought to have developed and increased significantly in recent decades due to the rapid globalisation of trade. The enormous volume and value of international trade transactions provide ideal conditions for concealing large transactions relating to criminal activities.
535. The technique is used by front companies to justify money movements, and settlements between *hawala* brokers. Usually this is done by misrepresenting the price or quantity of imports and exports and therefore abusing the financial system that supports these trades by facilitating global trade financing transactions. Typically, trade-based money laundering employs a number of techniques which require the manipulation of official documentation, such as over and under-invoicing, or false declarations on the import or export of goods. A basic example might be where a criminal group purchases goods with criminal profits, justifying the transfer of large sums of money overseas. While not essential, this may be achieved by misstating the prices paid, so that the buyer or seller retains the surplus value. The under-invoicing of exports and/or over-invoicing of imports have been highlighted as a frequently used way of illegally exporting capital. The common denominator in any approach to measuring this is to assess the magnitude of trade misinvoicing by analysing the foreign trade data mirror in order to detect discrepancies.
536. In the example below, the over-invoicing of used car imports represents a capital loss (USD 500 000) which depletes foreign exchange reserves by that amount, and a loss of revenues downstream when the Indian company files a corporate income tax return. Higher import costs lower corporate profits by understating them, so the company pays lower tax on them. Even though the first-round effect of import over-invoicing leads to higher import duties, the importer still gains if the savings via lower corporate taxation exceed the higher duties payable. So there is an adverse fiscal impact from deliberate trade misinvoicing.
537. In fact, trade misinvoicing that leads to lower revenue collection is a kind of fiscal termite, invisible and insidious. Now, as import over-invoicing also leads to higher VAT, companies that over-invoice often tend to recover the excess VAT paid by over-invoicing exports that have an import content. This is because VAT refunds are typically based on the percentage of import content that was not consumed domestically but was subsequently exported. Some studies show that import over-invoicing Granger-causes export over-invoicing with varying lags due to the VAT refund effect. The IMF country report on Zambia recently noted that arrears on VAT refunds accumulated in recent years to around 3 % of GDP as the government struggled to meet fraudulent claims for VAT refunds.

Box 30: Using trade misinvoicing to transform illegal money



A.7.13. Legal definitions of money laundering

538. Looking at legal definitions of money laundering and at law enforcement in different countries, one sees that some elements are often excluded. There is no single definition of money laundering. Table 19 shows definitions used by international organisations, by researchers and in legislation.

Table 19: Specific differences of the definitions of money laundering⁽²¹²⁾

| Reference | Subject | | | Source of subject (launderable money) | | Goal of money laundering | | |
|---------------------|---------|----------|----------|---------------------------------------|----------|--------------------------|----------------------|-------|
| | Stock | Illegal | Criminal | Illegal | Criminal | Hide the source | Make it appear legal | Other |
| Dutch Penal Code | | | Objects | | Criminal | Yes | | |
| Austrian Penal Code | Stock | | | | Criminal | Yes | | |
| German Penal Code | | | Objects | Illegal | | Yes | | |
| US Penal Code | Wealth | Proceeds | | Illegal | | Yes | | |
| Swiss Penal Code | Assets | | | | Criminal | | | |

⁽²¹¹⁾ <http://www.gfintegrity.org/issue/trade-misinvoicing>.

⁽²¹²⁾ Professor Dr. Brigitte Unger, Meeting of the Eurostat Task Force IEA on 21-22 September 2016, Luxembourg.

| Reference | Subject | | | Source of subject (launderable money) | | Goal of money laundering | | |
|---|----------|----------|------------|---------------------------------------|----------|--------------------------|----------------------|--------------------|
| | Stock | Illegal | Criminal | Illegal | Criminal | Hide the source | Make it appear legal | Other |
| Council Directive 91/308/EEC of 10 June 1991 on prevention of the use of the financial system for the purpose of money laundering | Property | | | | Criminal | Yes | | Prevent investment |
| UN Law model for ML | Property | | | | Criminal | Yes | | |
| FATF 1996 | | Proceeds | | | Criminal | Yes | | |
| IMF and World Bank | Assets | | | | Criminal | Yes | | |
| Interpol | | Proceeds | | Illegal | | Yes | Yes | |
| International Conference on Global Drugs | Property | | Money | | Criminal | | Yes | |
| Petrus C. Van Duyne 2003 | | | Advantages | Illegal | | | Yes | |
| John Walker 1995 | | | Money | Illegal | | | | Ambiguous |

Table 20: Predicate crimes in money laundering definitions ⁽²¹³⁾

| Types of crime | United States | Germany | Austria | Switzerland | Netherlands |
|---|---|--|--|--|-----------------------------------|
| Drugs and narcotic | X | X | Only some major delicts and hard drugs | Only some major delicts and hard drugs | Only serious crime and hard drugs |
| Theft, burglary and fencing | X | Not included simple theft and fencing | Not included simple theft and fencing | X | Only serious crime |
| Illegal activities in the labour market | Hiring illegal workers | No | No | No | No, misdemeanor |
| Tax evasion | If US taxes on crime; if from mix criminal/non criminal | Only business and criminal organisations | No | No | No, misdemeanor, only if fraud |
| Fraud | x | Only business and criminal organisations | Only business and criminal organisations | x | X |

Box 31: Definitions of money laundering

According to the *Financial Action Task Force (FATF)*, 'the goal of a large number of criminal acts is to generate a profit for the individual or group that carries out the act. Money laundering is the processing of these criminal proceeds to disguise their illegal origin. This process is of critical importance, as it enables the criminal to enjoy these profits without jeopardising their source. Illegal arms sales, smuggling, and the activities of organised crime, including for example drug trafficking and prostitution rings, can generate huge amounts of proceeds. Embezzlement, insider trading, bribery and computer fraud schemes can also produce large profits and create the incentive to 'legitimise' the ill-gotten gains through money laundering. When a criminal activity generates substantial profits, the individual or group involved must find a way to control the funds without attracting attention to the underlying activity or the persons involved. Criminals do this by disguising the sources, changing the form or moving the funds to a place where they are less likely to attract attention.'⁽²¹⁴⁾

⁽²¹³⁾ Professor Dr. Brigitte Unger: Meeting of the Eurostat Task Force IEA on 21-22 September 2016, Luxembourg.

⁽²¹⁴⁾ <http://www.fatf-gafi.org/faq/moneylaundering/>.

The Organisation for Economic Cooperation and Development (OECD) defines the term illicit financial flows as being generated by 'a set of methods and practices aimed at transferring financial capital out of a country in contravention of national or international laws. In practice, an illicit financial flow ranges from something as simple as a private individual transferring funds into his/her account abroad without having paid taxes on the funds, to highly complex money laundering schemes involving criminal networks setting up multi-layered multi-jurisdictional structures to hide ownership and transfer stolen funds.'⁽²¹⁵⁾

Recital (11) of Directive (EU) 2015/849⁽²¹⁶⁾ (the Fourth Anti-Money Laundering Directive) reads as follows: 'It is important expressly to highlight that "tax crimes" relating to direct and indirect taxes are included in the broad definition of "criminal activity" in this Directive, in line with the revised FATF Recommendations. Given that different tax offences may be designated in each Member State as constituting "criminal activity" punishable by means of the sanctions as referred to in point (4)(f) of Article 3 of this Directive, national law definitions of tax crimes may diverge. While no harmonisation of the definitions of tax crimes in Member States' national law is sought, Member States should allow, to the greatest extent possible under their national law, the exchange of information or the provision of assistance between EU financial intelligence units.'

Article 1(3) of the Fourth Anti-Money Laundering Directive defines money laundering as follows:

'For the purposes of this Directive, the following conduct, when committed intentionally, shall be regarded as money laundering:

- (a) the conversion or transfer of property, knowing that such property is derived from criminal activity or from an act of participation in such activity, for the purpose of concealing or disguising the illicit origin of the property or of assisting any person who is involved in the commission of such an activity to evade the legal consequences of that person's action;
- (b) the concealment or disguise of the true nature, source, location, disposition, movement, rights with respect to, or ownership of, property, knowing that such property is derived from criminal activity or from an act of participation in such an activity;
- (c) the acquisition, possession or use of property, knowing, at the time of receipt, that such property was derived from criminal activity or from an act of participation in such an activity;
- (d) participation in, association to commit, attempts to commit and aiding, abetting, facilitating and counselling the commission of any of the actions referred to in points (a), (b) and (c).'

The *International classification of crime for statistical purposes (ICCS)* defines money laundering as conversion or transfer of property, knowing that such property is the proceeds of crime, for the purpose of concealing or disguising the illicit origin of such property or of helping any person who is involved in the commission of the predicate offence to evade the legal consequences of his or her actions, as well as the concealment or disguise of the true nature, source, location, disposition, movement or ownership of rights with respect to the property.⁽²¹⁷⁾

⁽²¹⁵⁾ See *Illicit Financial Flows from Developing Countries: Measuring OECD Responses*, OECD, 2013, https://www.oecd.org/corruption/Illicit_Financial_Flows_from_Developing_Countries.pdf.

⁽²¹⁶⁾ Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC.

⁽²¹⁷⁾ UNODC, *International classification of crime for statistical purposes*, Version 1.0, March 2015.

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Acronyms and abbreviations

| | |
|---------------|--|
| ABS | Australian Bureau of Statistics |
| AIHW | Australian Institute of Health and Welfare |
| ASNA | Australian System of National Accounts |
| ATF | Bureau of Alcohol, Tobacco, Firearms and Explosives |
| AUSTRAC | Australian Transaction Reports and Analysis Centre |
| BOP | balance of payments |
| BPM6 | Balance of payments and international investment position manual, sixth edition (IMF) |
| CMFB | Committee on monetary, financial and balance of payments statistics |
| CNR | National Research Council |
| CPA 2008 | Classification of products by activity 2008 (Eurostat) |
| DANE | Departamento Administrativo Nacional de Estadística |
| DCSA | Central Directorate of Anti-Drug Policies |
| DG TAXUD | Directorate General Taxation and Customs Union |
| DIRAN | Dirección de Antinarcóticos |
| DNE | Dirección Nacional de Estupefacientes |
| DPA | Anti-Drug Policy Department |
| EC | European Commission |
| ECB | European Central Bank |
| ECOLEF | Economic and legal effectiveness of anti-money laundering and combating terrorist financing policy |
| EFTA | European Free Trade Association |
| EMCDDA | European Monitoring Centre for Drugs and Drug Addiction |
| EUIPO | EU Intellectual Property Office |
| Euratom | European Atomic Energy Community |
| Europol | European Police Office |
| ESA 95 | European system of accounts 1995 (Eurostat) |
| ESA 2010 | European system of accounts 2010 (Eurostat) |
| ESPAD | European school survey project on alcohol and other drugs |
| EU | European Union |
| FATF | Financial Action Task Force |
| FIU | Financial Intelligence Unit |
| FRAN | FRONTEX Risk Analyses Unit |
| FRONTEX | European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union |
| GENACIS | Gender, alcohol, and culture: an international study |
| GDP | gross domestic product |
| GNI | gross national income |
| GNI Committee | Gross National Income Committee (Eurostat) |
| GNP | gross national product |
| GNP Committee | Gross National Product Committee (Eurostat; replaced by the GNI Committee) |
| GTRIC | general trade-related index of counterfeiting |
| GVA | gross value added |
| HBSC | Health Behaviour in School-aged Children |
| HFCE | household final consumption expenditure |
| IC | intermediate consumption |
| ICCS | International Classification of Crime for Statistical purposes |
| IEAs | illegal economic activities |
| ICPFs | insurance corporations and pension funds |
| IMF | International Monetary Fund |
| IMTS | International Merchandise Trade Statistics |
| INSEE | National Institute of Statistics and Economic Studies - France |
| INTERPOL | International Criminal Police Organization |

| | |
|----------|---|
| IOM | International Organization for Migration |
| ISTAT | Istituto nazionale di statistica, Italy |
| MFI | Monetary financial institutions |
| MONEYVAL | Committee of experts on the evaluation of anti-money laundering measures and the financing of terrorism |
| NA | national accounts |
| NACE | Statistical classification of economic activities in the European Community (Eurostat) |
| NDSHS | National Drug Strategy Household Survey |
| NGO | Non-governmental organisation |
| NOE | non-observed economy |
| OECD | Organisation for Economic Co-operation and Development |
| OFC | Offshore Financial Center |
| OLAF | Office européen de lutte antifraude |
| OJ | Official Journal of the European Union |
| PMLS | provision of money laundering services |
| PPE | pilot projects on exhaustiveness |
| PRELAC | Prevención del Desvío de Sustancias Precursoras de Drogas en los Países de América Latina y el Caribe |
| 1993 SNA | System of national accounts 1993 (UN) |
| 2008 SNA | System of national accounts 2008 (UN) |
| REITOX | European information network on drugs and drug addiction |
| RELIS | Luxembourg Information Network on Drugs and Drug Addiction |
| ROW | rest of the world |
| SAR | Suspicious activity report |
| SIDCO | Sistema de Información de Drogas de Colombia |
| SIMCI | Sistema Integrado de Monitoreo de Cultivos Ilícitos |
| STR | Suspicious transaction report |
| STATEC | Institut national de la statistique et des études économiques du Grand-Duché de Luxembourg |
| TAMPEP | European Network for HIV/STI Prevention and Health Promotion among Migrant Sex Workers |
| TBML | Trade based money laundering |
| TFEU | Treaty on the Functioning of the European Union |
| THL | National Institute for Health and Welfare of Finland |
| UN | United Nations |
| UNECE | United Nations Economic Commission for Europe |
| UNHCR | Office of the United Nations High Commissioner for Refugees |
| UNODC | United Nations Office on Drugs and Crime |
| UTR | Unusual transaction report |

Members of the Task Force

| | | |
|---------------|---------------|--|
| Ilcho | BECHEV | European Commission, Eurostat, Luxembourg |
| David | BRACKFIELD | OECD, France |
| Hilary | CADOGAN | Central Statistics Office, Ireland |
| Richard | CAINE | European Commission, Directorate General Migration and Home Affairs, Belgium |
| Diana | CUCU | European Commission, Eurostat, Luxembourg |
| Andreas | DOLLT | European Commission, Eurostat, Luxembourg |
| Dr. Isabelle | IOANNIDES | European Parliament, European Parliamentary Research Service, Belgium |
| Dr. Robert | DUNN | European Commission, Eurostat, Luxembourg |
| Durmus | GÖKER | Statistics Sweden, Sweden |
| Dr. Matthias | LUDWIG | European Commission, Eurostat, Luxembourg |
| Rita | MESIAS | European Commission, Eurostat, Luxembourg |
| Robert | MICHAUX | STATEC, Luxembourg |
| Henk | NIJMEIJER | European Commission, Eurostat, Luxembourg |
| Marios | PAPASPYROU | Bank of Greece, Greece |
| Luca | PAPPALARDO | European Commission, Directorate General Migration and Home Affairs, Belgium |
| Carmen | PICON-AGUILAR | European Central Bank, Germany |
| Pedro | POLVORA | European Central Bank, Germany |
| Brian | RAMSBOTTOM | Central Statistics Office, Ireland |
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| Dr. Federico | SALLUSTI | ISTAT, Italy |
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Handbook on the compilation of statistics on illegal economic activities in national accounts and balance of payments

The present Handbook represents the first comprehensive overview of conceptual and practical issues related the compilation of statistics on illegal economic activities (IEAs) in national accounts (NA) and balance of payments (BOP).

Estimating the extent or the value of IEAs is clearly problematic because a direct observation is often out of question. However, statistical institutions and data users have increasingly recognised the need for comprehensive, reliable and internationally available information on IEAs in NA and BOP. Therefore, the purpose of this Handbook is to provide a common definition of IEAs and guidance for collecting and compiling IEA statistics, in a consistent and coordinated way. The aim is also to contribute to improved collection and compilation and to a greater understanding of IEA transactions.

This Handbook is the result of the joint work of the members of the Task Force on the Recording of IEAs in NA and BOP, consisting of experts from the European Commission, European national statistical institutes and central banks, as well as UNODC, ECB and OECD.

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